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ABSTRACT

The possibilities of using film to influence the positive self-image of the American Indian child and of gaining new insights into the applicability of film materials developed for one ethnic group to children of other ethnic groups were explored. Data were collected on 104 6th grade students from 3 schools on the Pine Ridge Indian Reservation in South Dakota. Three semantic differential instruments and 2 newly developed instruments to measure self-image were used. Factors were extracted until approximately 50% of the variance of the items in each set was accounted for. Computer plots of the relationship between factor scores and self-image levels were presented. Results for the semantic differential instruments were tabulated. The results suggested that Indian students' ratings of self were more self-critical following exposure to the educational experience and that the educational experience had grossly similar effects across ethnic lines. Major recommendations included that subsequent studies should focus on how materials affect children at a particular self-image level within a given ethnic group, that materials prepared for one ethnic group not be used for other ethnic groups, that materials not be assumed to have the same import for all students in that ethnic group, and that a given educational experience be viewed as an initial activity. A related document is ED 044 026. (PS)

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Exploration of the Generality of Self-Image Materials Across Ethnic Groups

Final Report

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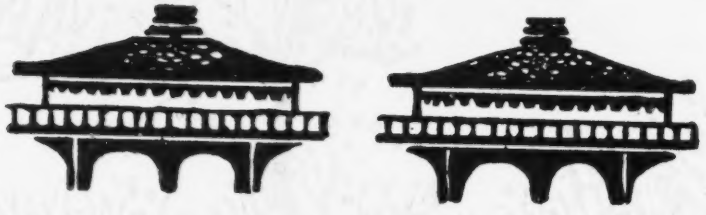

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Prepared by

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The research reported herein was performed pursuant to a contract with the Office of Education, U. S. Department of Health, Education, and Welfare. Contractors undertaking such projects under Government sponsorship are encouraged to express freely their professional judgment in the conduct of the project. Points of view or opinions stated do not, therefore, necessarily represent official Office of Education position or policy.

Prepared for

Task Force on Field Initiated Studies
National Institute of Education
Washington, D. C.

Under Contract Number OEC 9-72-0031 (057)

ABSTRACT

This study is an extension of work previously reported by Weisgerber and Coles (Evaluating the Potential of Films for Improving Self-Image in Minority Group Children, 1971) under an Office of Education contract, OEC 9-9-140904-0036 (057).

The purposes of the prior study were (I) to identify elements of an existing film, Frederick Douglass, which might affect self-image, (II) to incorporate such elements during the production of two new films, John Mercer Langston and When Children Search for Themselves, the former directed toward children and the latter for their teachers, and (III) to evaluate the effectiveness of these new films, combined with class discussion, for white, black, and Mexican-American ethnic groups.

A primary purpose of the present study was the analysis of experimental effects of the film John Mercer Langston upon a sample of American Indian sixth graders. Their teachers were previously shown the film When Children Search for Themselves. Results indicated that for the most part the Indian students were more self-critical after the treatment but that effects were often not consistent for low, mid and high self-image Indian students.

An additional purpose of the study was the comparison of effects across ethnic groups to shed light on the generality (applicability) of the instructional materials for ethnic groups not featured in the stimulus film shown to the students. Overall, gross treatment effects appeared to be similar, with experimental groups tending to be more critical than controls. However, more detailed study indicated that response patterns were frequently divergent for one or more of the four ethnic groups, suggesting that the inter-ethnic generality of these particular materials seems limited.

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The AIR staff members who participated in this project did so amid pressing needs for their time and skills on other projects. It is a credit to their teamwork that these complex data were analyzed as effeciently as was the case. Finally, the help of Carolyn Morrow and Carolyn Davis, both Administrative Assistants, is acknowledged with sincere thanks.

INTRODUCTION

The general purpose of the study was to explore the use of film in influencing positive self-image of the American Indian child by providing him with models with whom he can identify. Film drama, interspersed with class discussion, was used to encourage realistic self-appraisal and the initiation of self-enhancing behaviors.

As an additional purpose of the study, it was anticipated that new insights might be gained into the applicability of film materials developed for one ethnic group (blacks) when used with children of other ethnic groups, specifically, whites, Mexican-American and Indians.

This Final Report summarizes the data in this study and builds upon a prior study, Evaluating the Potential of Films for Improving Self-Image in Minority Children, by Weisgerber and Coles (1971).* A copy of that Final Report is available from the ERIC Document Reproduction Service in microfiche or hard copy as document ED 061 726.

Previous Related Study

The two films used in this study were developed as a part of the prior research and development project (Weisgerber & Coles, 1971). The John Mercer Langston film was prepared in 16mm color with a 25-minute running time, although by design this film was constructed with two "intermissions" to enable class discussion to take place. At each of these points the word "Why?" appears on the screen, followed by sufficient opaque leader to permit the projector to be turned off before the next scene appears. A third class discussion was to take place after the film had ended.

The teacher training film, When Children Search for Themselves, was produced as a documentary showing how the Langston film was actually used by a teacher of a sixth grade class of multi-ethnic composition. The second portion of the teacher training film shows follow-up activities carried out by the sixth grade class, some comments about the

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*Weisgerber, R. A., & Coles, G. J. Evaluating the Potential of Films for Improving Self-Image in Minority Group Children. Final Report: Contract Number OEC 9-9-140904-0036 (057). Palo Alto: Calif.: American Institutes for Research, 1971.

experience by participating students, and an in-depth interview with the teacher to provide an interpretation of the experience.

The When Children Search for Themselves film was prepared in 16mm color with a 25-minute running time. The sound track is a combination of live dialogue between teacher and students and voice-over by a narrator-interpreter. Chosen for the narrator-interpreter task was Dr. A. W. Foshay, a well known educator on the faculty of Teachers College, Columbia University.

As a part of the film production subcontract, Robert Saudek Associates also developed a Teacher Guide to accompany each film. The finished Guide for John Mercer Langston contains background reading for the teacher and students, synopses of the film's three acts, follow-up readings (including excerpts from those readings), suggested activities, and questions which teachers can use as probes during the film-oriented group discussions. The last of these pages was intended as a short self-evaluation inventory which could be reproduced by the teacher and given out to students after viewing the Langston film. Because of its measurement connotation, this self-evaluation inventory was prepared by the American Institutes for Research.

In summary, the principal stimulus materials were:

- John Mercer Langston, a dramatic film intended for sixth grade minority children, particularly blacks, that was designed to facilitate group discussion, and was aimed at such self-image components as sense of control over the future and sense of personal identity.
- When Children Search for Themselves, a documentary film, intended for sixth grade teachers who used the Langston film, that was designed to show the techniques for reinforcing the film's self-image message through group discussion, to give follow-up suggestions, and to provide an educational interpretation of the experience.
- Teachers Guides for both films, with the Langston Guide incorporating a short student self-evaluation inventory that teachers can reproduce for classroom use.

METHODS

Study Design and Population

The population for the present study was drawn on a block sampling basis from three schools on the Pine Ridge Indian Reservation in South Dakota. Each class was randomly assigned to experimental and control conditions. Four classes were assigned to the experimental condition and three to the control condition. Only sixth grade classes were used.

Based on the sampling strategy outlined above, data were collected on 104 children. Descriptive analyses were undertaken to further define the population according to their language arts achievement, mathematics achievement, sex and age. These data are also reported in Appendix C. For the Indian population, there were 56 boys and 48 girls in the study. There was no statistically significant relationships between sex and experimental/control group membership. The mean language report card grade for the experimental group was $\bar{X} = 2.54$ and for the control group was $\bar{X} = 2.40$, a nonsignificant difference. The mean math grades for experimental students (2.90) and for control students (2.31) was significantly different at the .01 level. With 1 as the best grade possible, it is evident that the control students were, on the average, receiving the higher math grades. The mean age for experimental students was 12.39 and for control students was 12.18, a difference which was not statistically significant.

Procedures for Data Collection

All teachers were brought together for a training session in which 1) the study purpose was discussed, 2) the teacher training film (When Children Search for Themselves) was shown, 3) explanations were given concerning the manner in which group discussions should be conducted and the student film (John Mercer Langston) was shown, 4) the measurement instruments were reviewed, 5) instrument administration instructions were given out, and 6) prepackaged experimental and control materials were given out.

In the classroom, each experimental teacher showed part one of the John Mercer Langston film and then led a discussion about it before showing part two of the film. Class discussions also followed part two and part three of the film. Teachers were not constrained in the amount of time that could be devoted to each of these discussions nor were they told to employ any "hard sell" concerning the film message. Rather, they were to draw out the students' own perceptions of what happened in the film, what it meant in the life of the film's "hero," and its meaning for their own lives. In accord with the design of the film, the three group discussions were to shift in emphasis; that is, the latter discussions were to be proportionately less centered on the film content and more centered on examination of the self even though the two topics were continually linked together by the use of metaphors and film/self parallels drawn by the discussants.

Following the third discussion, the instruments were administered according to the instructions shown in Appendix A-1. Control groups were assessed concurrently in their own rooms in the school and had experienced neither the stimulus film nor the teacher-led discussion.

The day after the data had been collected, the control group teachers were given the option of showing and discussing the John Mercer Langston film. Most of them elected to take advantage of this opportunity. No data were collected after these volunteer viewings.

Instruments

Instruments used in the present study were the same as those used in the study by Weisgerber and Coles (1971). These were the three semantic differential instruments "How I Am," "How I Would Like to Be," and "Most of My Classmates Think I Am," and two newly developed instruments, "Would John" and "Would You," all shown in Appendix A-2.

Prior to the analysis of treatment effects, items comprising the "Would John" instrument and the items comprising the "Would You" instrument were factor analyzed using data from both experimental and control conditions for all four ethnic groups. Factors, or more correctly, principal components,were extracted until approximately 50 percent of

the variance of the items in each set was accounted for. This was done on the assumption that the percent of variance accounted for expresses the average communality of the items analyzed and that item communality represents an upper bound to and conservative estimate of item reliability. These principal component factors were "identified" as follows:

"Would John" instrument

I. Independent personal development
II. Ethnic identity
III. Independent personal action
IV. Deferred gratification
V. Control over events and others
VI. Social acceptability
VII. Responsible self-appraisal
VIII. Deliberate self-correction

These eight factors/components accounted for 50 percent of the total variance in "Would John" item responses.

"Would You" instrument

I. Corrective self-appraisal
II. Leadership and self-assertion
III. Verbal persuasiveness
IV. Ethnic identity
V. Educational affinity
VI. Making intelligent choices
VII. Persistence toward delayed reward
VIII. Personal planning for the future

These eight factors accounted for 51 percent of the total variance in "Would You" item responses.

It should be noted that the sixteen factors named above are not identical to the factors identified in the previous study since they were developed with a new population, the Indians, being merged in. The complete rotated factor matrix for each instrument is shown in Appendices B-1 and B-2, along with the rank order of the item loadings on each of the eight factors. The factor scores were used for analysis of main effects as described more fully in the section dealing with the analysis plan.

Analysis Plan for Film Report and Self-Report Instruments

The reader should make note of the fact that although the raw data on whites, blacks and Mexican-Americans were carried forward from the prior study, all calculations and analyses were newly carried out in the present study in order to take into account the additional data on Indians.

The data analyses described in this section were repeated in each of the subpopulations, i.e., for whites, blacks, Mexican-Americans and Indians. First, the relationship between ethnic group membership and item response on each "Would John" and "Would You" item was assessed. The percent of responses for each ethnic group for each item is shown in Appendix D-1. The chi squares between ethnic group membership and item response on each item are shown in Appendix D-2.

For further analysis of the data, it was hypothesized that film effects would be dependent upon each student's level of self-image. Overall experimental/control mean differences, then, might not be representative of the differences that would be observed for groups of students with different levels of self-image. That is, the factor scores of "low" self-image students might be affected in one way by the film/discussion and the factor scores of "high" self-image students might not be influenced in the same way. Therefore, a self-image level score was generated for students in each experimental and control group, for each of the four ethnic groups.

A student's self-image "level" score was equal to the rank order of his particular factor score divided by the total number of students in his ethnic/treatment group. This division by the n in each group had the effect of standardizing the range of the self-image "level" variables over all groups in spite of the fact that there were different n's in

each group (and thus differing numbers of ranks).

In summary, (1) a self-image "level" variable was generated for each of the sixteen factor scores (eight "Would John" and eight "Would You") and (2) this procedure was repeated for the students in each of the eight groups, defined by two treatment conditions (experimental and control) and the four subpopulations (white, black, Mexican-American and Indian).

A multiple regression analysis approach was selected as the most versatile and appropriate analytic technique that could be used to examine the effects of the film and whether or not these effects were dependent upon relative level of self-image. (See Multiple Regression Approach by Kelly, Beggs, McNeil, Eichelberger and Lyon, 1969.*) It would have been possible to group the factor scores within each treatment/control group for each ethnic group into, say, thirds (based on the magnitude of the factor score). One could then examine treatment effects for students with "high," "medium" and "low" self-image with two-way analysis of variance techniques. However, it was felt that specifying definite cutoff points for "high," "medium" and "low" self-image level in this exploratory research might lead to the formation of groups which could obscure differences between film and nonfilm students within the arbitrarily defined self-image level groups formed. Instead of creating three discrete groups of scores based on factor score rank (i.e., magnitude), it was decided that the rank of the factor score itself would provide a continuous measure of self-image level. This would allow us to avoid losing self-image level information by overly gross ranking.

Therefore, a full linear model was developed which expressed the functional relationship between a factor score dependent variable and the independent variables, treatment and self-image level. Restrictions could then be placed on this full model in accordance with the null hypotheses associated with the specific effects to be examined. The restricted models tested for curvilinear effects, curvilinear interaction, linear slope, linear interaction and an intercept difference between experimental

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*Kelly, R. G., Beggs, D. L. & McNeil, K. A., with Eichelberger, T., & Lyon, J. Research design in the behavioral sciences: multiple regression approach. Carbondale and Edwardsville, Ill.: Southern Illinois University Press; and London and Amsterdam: Feffer and Simons, Incorporated, 1969.

(film) and control groups. The technical procedure involved in the present investigation is discussed in Appendix E.

The approach discussed above was applied to the sixteen factor score variables for each race. Results were then plotted by computer so that the treatment effects for whites, blacks, Mexican-Americans and Indians of differing self-image levels could be readily seen.

Analysis Plan for the Semantic Differential Instruments

Scores on the three semantic differential instruments, "I Am," "How I Would Like to Be," and "How My Classmates Think I Am," were analyzed by t test to examine possible differences between experimental and control groups. No attempt was made to relate these semantic differential scores to a self-image "level" variable as was done with the "Would John" and "Would You" instruments.

RESULTS

Results for the Film Report Instrument, "Would John"

As was discussed previously in somewhat more detail, the "Would John" inventory was used in the study as a film report instrument. This inventory was administered after the three semantic differential instruments, but before the self-report instrument, "Would You." It was intended to establish how experimental students (who were exposed to the John Mercer Langston film) perceived the self-image portrayal of the film hero; that is, whether the role model was perceived favorably with regard to factors discussed previously:

- independent personal development (Factor I)
- ethnic identity (Factor II)
- independent personal action (Factor III)
- deferred gratification (Factor IV)
- control over events and others (Factor V)
- social acceptability (Factor VI)
- responsible self-appraisal (Factor VII)
- deliberate self-correction (Factor VIII)

Thus, if John was perceived in the Langston film as demonstrating (or not demonstrating) an ethnic identity characteristic, as tapped by Factor II, it could presumably make a difference in the way experimental students characterize themselves. Functionally, the film report "Would John" instrument served as a kind of link to the self-report "Would You" instrument. Because the items on the two instruments were parallel in construction, a similar pattern of responses by the experimental group on the "Would You" and "Would John" instruments might be attributed to identification with the film hero. On the other hand, if similarity of patterns failed to develop on the two instruments it would tend to suggest that role identification was not taking place and other elements of the experience, particularly the class discussion, might have had appreciable influence on experimental students' scores. Appendix D-1 shows these results.

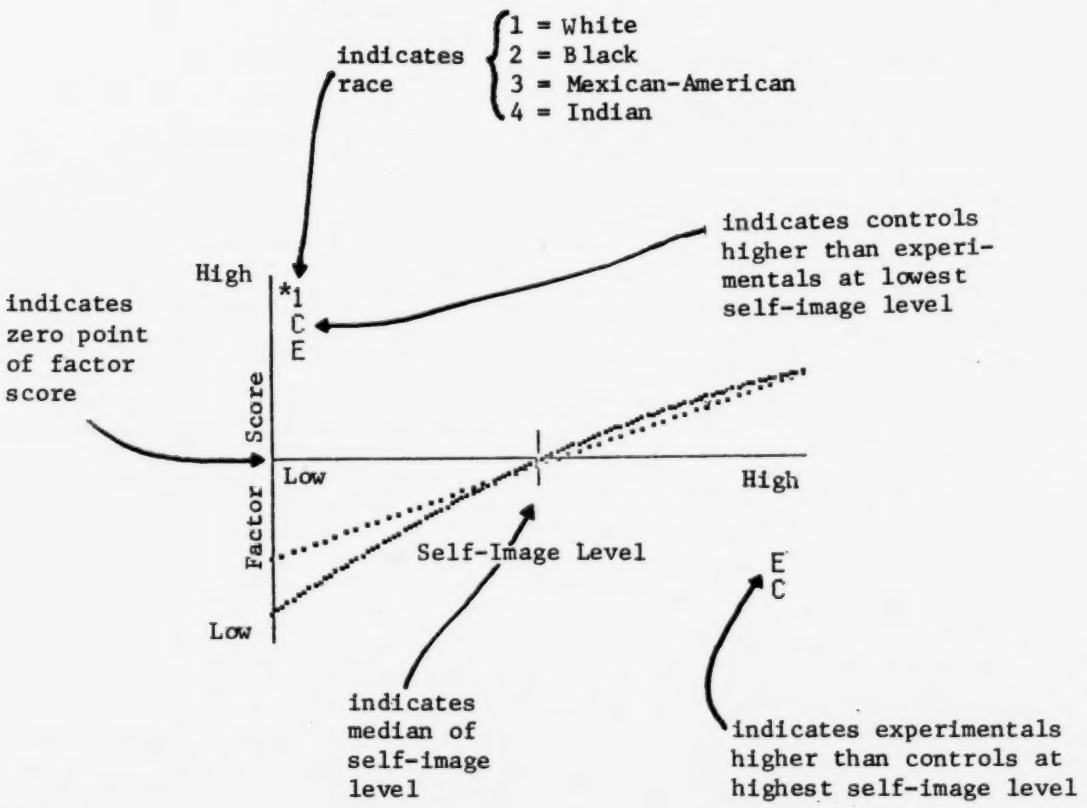
Overall, it can be seen in Appendix D-1 that the four ethnic groups tended to have a slight bias toward complimentary responses and this was true for both the "Would John" and "Would You" instruments. Of the four ethnic groups the blacks tended to award the most favorable ratings of John and of themselves in the two instruments, and Indians had the most critical ratings of John and of themselves.

Further, keeping in mind that the items were parallel on the two instruments, there was a tendency on most items for individuals in the various ethnic groups to rate themselves more favorably than they rated John. On some items this tendency was pronounced (e.g., item 5: "How often would John/you be happy with your skin color"). On a few of the items one or more of the ethnic groups did not follow the trend (e.g., item 26, Indians: "How often would John/you work hard even if the payoff wasn't very soon").

As can be seen in Appendix D-2, of the 30 items on the "Would John" instrument there were significant differences in the ways that whites, blacks, Mexican-Americans and Indians answered 20 of the items. Differences in the response patterns of the four ethnic groups were even more pronounced on the "Would You" instrument, where analysis by chi square indicated differences for 26 of the 30 items.

As indicated previously, it was felt that statistical procedures should be used which would indicate a) whether experimental and control groups had overall differences in their perceptions of John and themselves and b) how these effects might depend on the self-image level of the students. Multiple regression techniques were used to example these possible effects.

Multiple regression analyses of the "Would John" and "Would You" instruments are reported for each factor. Separate plots of the experimental and control regression lines for each full model are shown for each ethnic group. These lines of best fit are computer generated and illustrate differential effects in the way that low and high self-image level students perceived the Langston film. Figure 1 is an example of these computer plots, meant to facilitate the reader's interpretation of Figures 2 through 17. The reader who is interested in the regression coefficients on which these plots are based should turn to Appendices F-1 and F-2. It should be noted that the plots shown in Figures 2 through 17 are based on all six full model coefficients regardless of whether or not they were significantly different for experimental and control groups. In other words, the coefficients shown in Appendices F-1 and F-2 were used to generate the lines in these plots. For degrees of freedom, F values and statistical significance of these regression coefficients the reader is referred to Appendices G-1 and G-2.



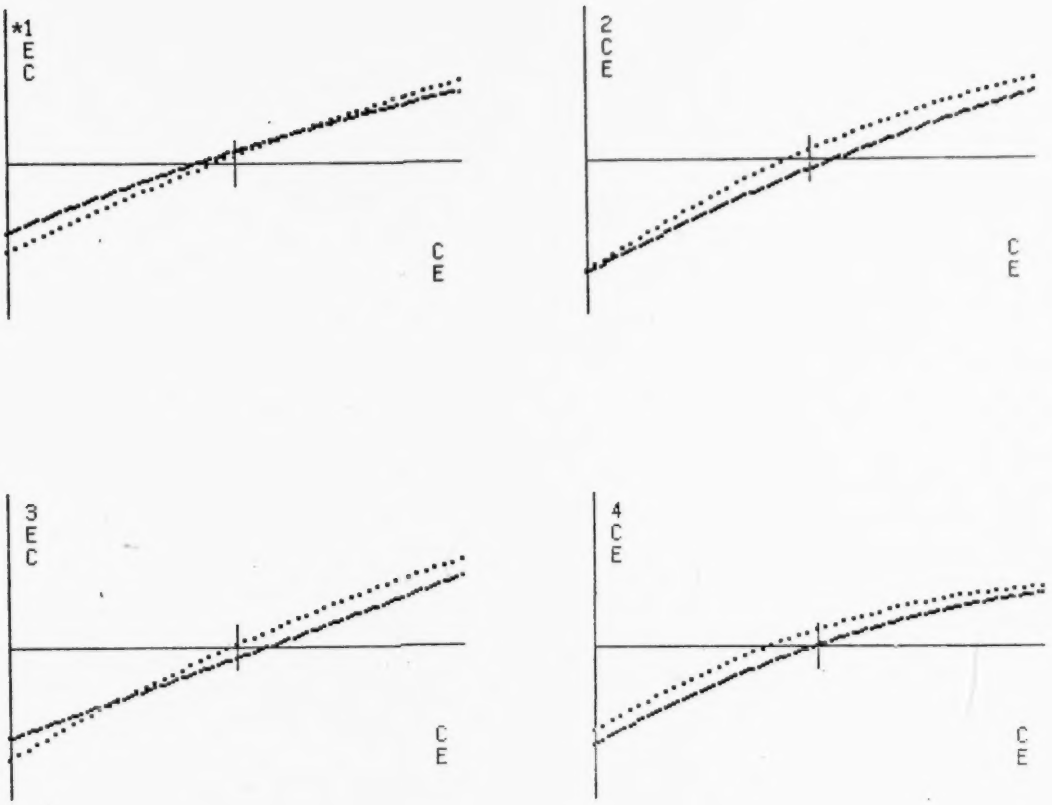
*1 = White
2 = Black
3 = Mexican-American
4 = Indian
E = Experimental (——)
C = Control (.....)

Figure 1. Explanation of the computer plots of the relationship between factor score and self-image level for Factors I - VIII for the "Would John" and "Would You" instruments.

Figure 2 shows the computer plots for whites, blacks, Mexican-Americans, and Indians for "Would John" Factor I, Independent Personal Development. By visual inspection of the plots and the pattern of significant effects shown in Appendix G-1, it can be seen that there were consistent effects on Indians because the experimental groups at all self-image levels gave John lower scores than did the control group. This effect was similar for blacks but was diminished for low self-image level students. Results for Mexican-Americans indicated a significant interaction. It appeared that the low self-image experimental children tended to rate John higher than the controls while mid to high self-image experimental children did the opposite. A significant difference was noted for whites, with experimental students rating John higher, but the seeming interaction in the plot is nonsignificant according to the tests reported in Appendix G-1.

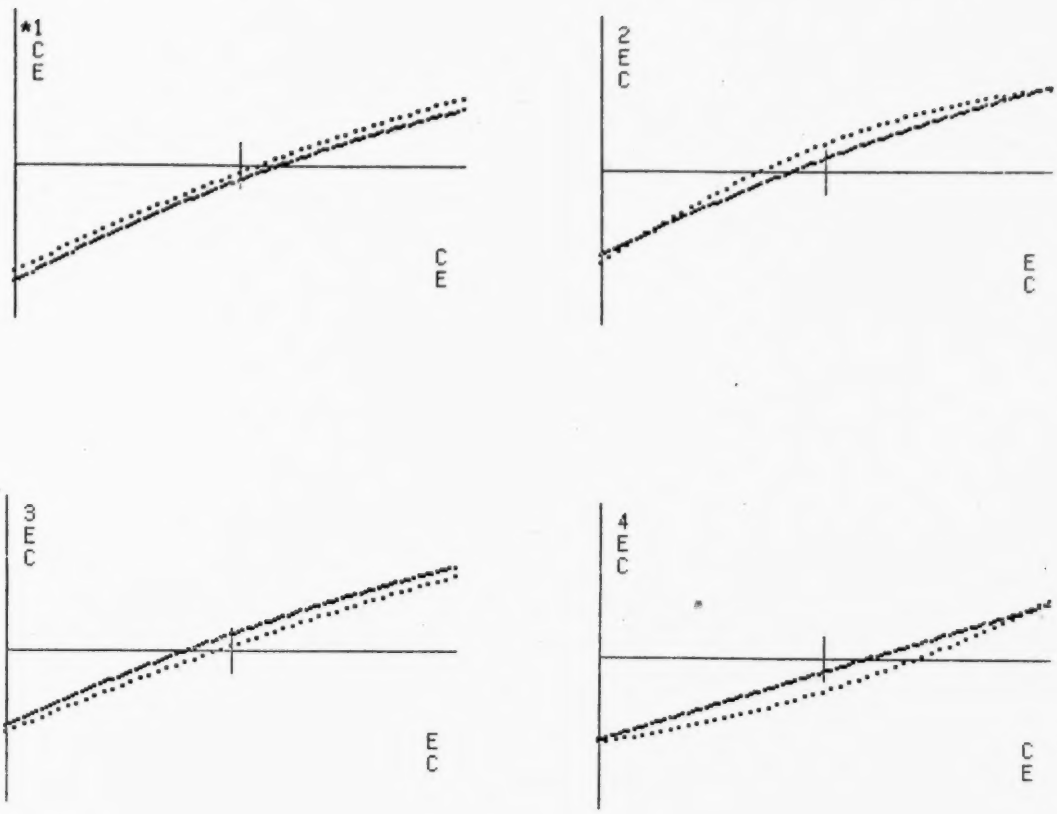
Figure 3 shows the plots for the four ethnic groups for "Would John" Factor II, Ethnic Identity. Interaction effects for blacks and Indians were significant; however, Indian experimental students at the mid range perceived John as having a higher ethnic identity while the opposite was true for blacks. White control students consistently perceived John as having more of this attribute than experimentals. Mexican-Americans showed no significant differences.

Figure 4 shows the computer plots for the four ethnic groups for "Would John" Factor III, Independent Personal Action. A significant difference was observed in the way that the Indian groups viewed John; regardless of self-image level, the experimental students perceived him as being more independent in his personal action than did the control students. Among mid self-image level Mexican-American experimental students the perception of John was lower than that of the controls. White experimental students viewed John slightly more favorably on this factor than did controls but not significantly so. Blacks showed no particular effect except at the high self-image level, where the experimentals tended to give higher ratings than did controls.



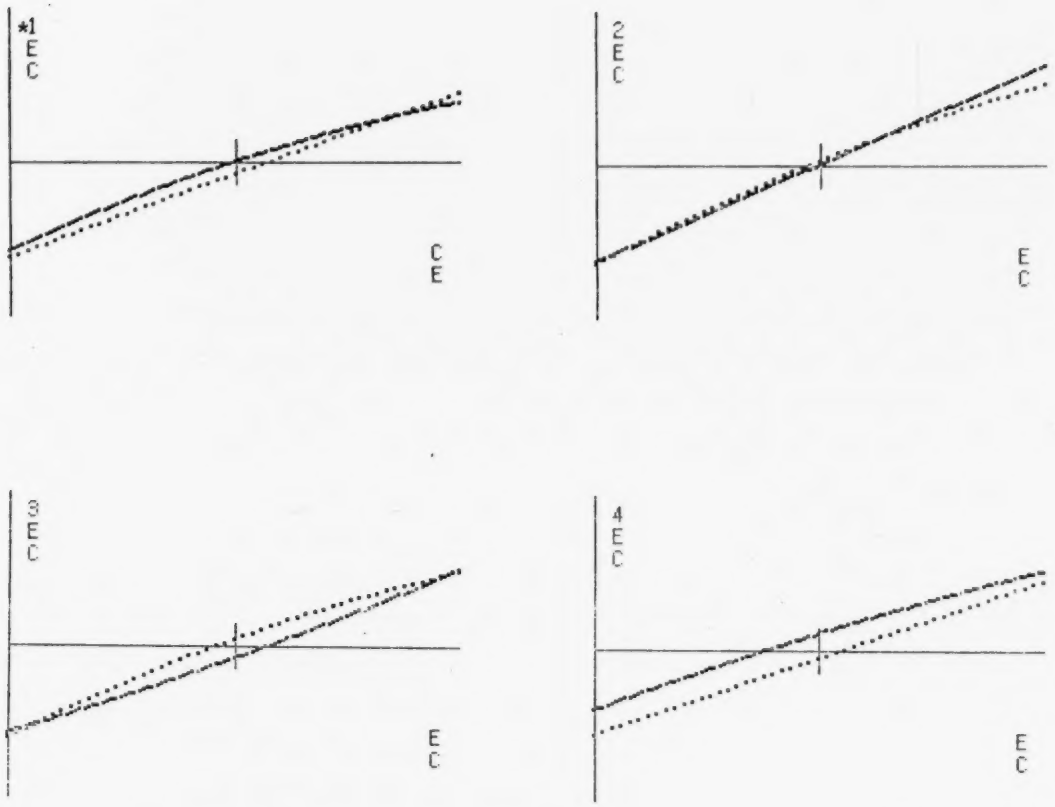
*1 = White
2 = Black
3 = Mexican-American
4 = Indian
E = Experimental (———)
C = Control (·····)

Figure 2. Computer plots of the relationship between factor score and self-image level for Factor I (Independent Personal Development) on "Would John" instrument.



*1 = White
2 = Black
3 = Mexican-American
4 = Indian
E = Experimental (———)
C = Control (·····)

Figure 3. Computer plots of the relationship between factor score and self-image level for Factor II (Ethnic Identity) on "Would John" instrument.



*1 = White
2 = Black
3 = Mexican-American
4 = Indian
E = Experimental (———)
C = Control (.....)

Figure 4. Computer plots of the relationship between factor score and self-image level for Factor III (Independent Personal Action) on "Would John" instrument.

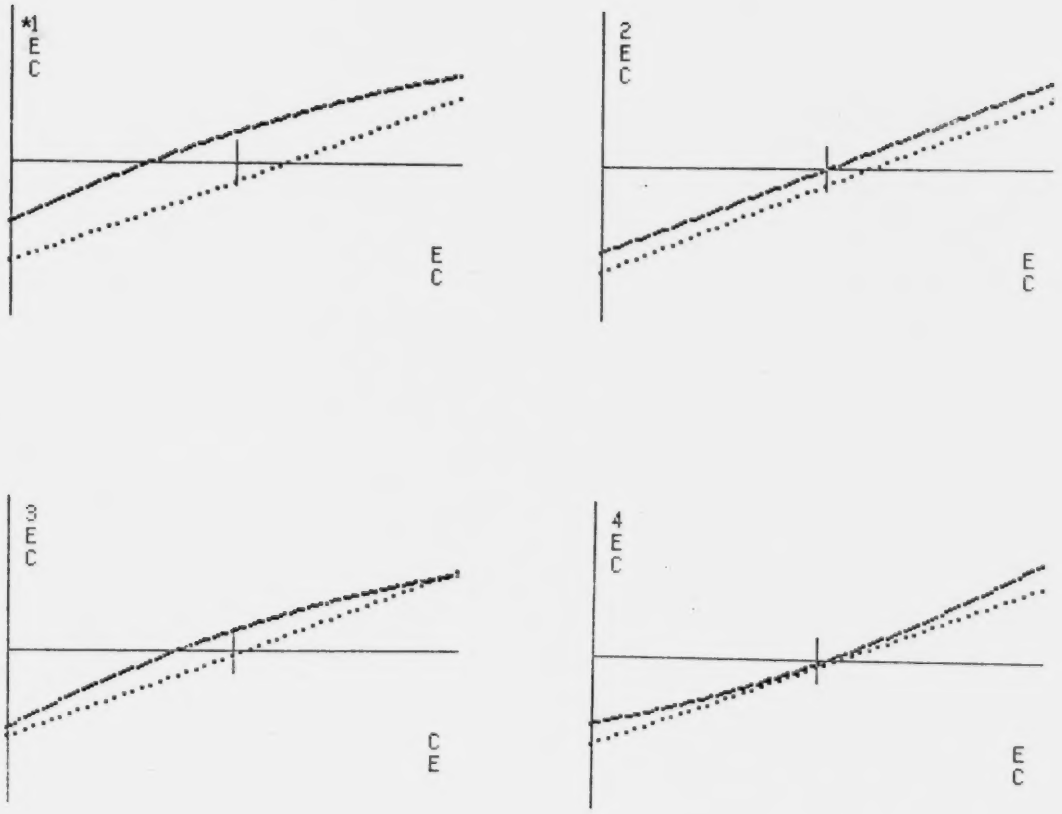
Figure 5 shows the plots for the four ethnic groups for "Would John" Factor IV, Deferred Gratification. Even though interactions were present, a highly significant difference was noted for whites in that experimental students very clearly perceived John as exhibiting deferred gratification. Experimental blacks at all levels saw this attribute in John as did the mid range Mexican-Americans. Experimental Indians tended to agree only at the highest and lowest self-image levels.

Figure 6 shows the results for the four ethnic groups for "Would John" Factor V, Control over Events and Others. Indian experimental students did not perceive John as exhibiting the same degree of control over events and others as did the controls. There were no differences between the experimentals and controls for white, black and Mexican-American groups.

Figure 7 shows the computer plots for the four ethnic groups for "Would John" Factor VI, Social Acceptability. John was perceived as being more socially acceptable by experimental Indians at all self-image levels, by mid to high blacks, and by low and high self-image level whites. No differences were observed for Mexican-Americans.

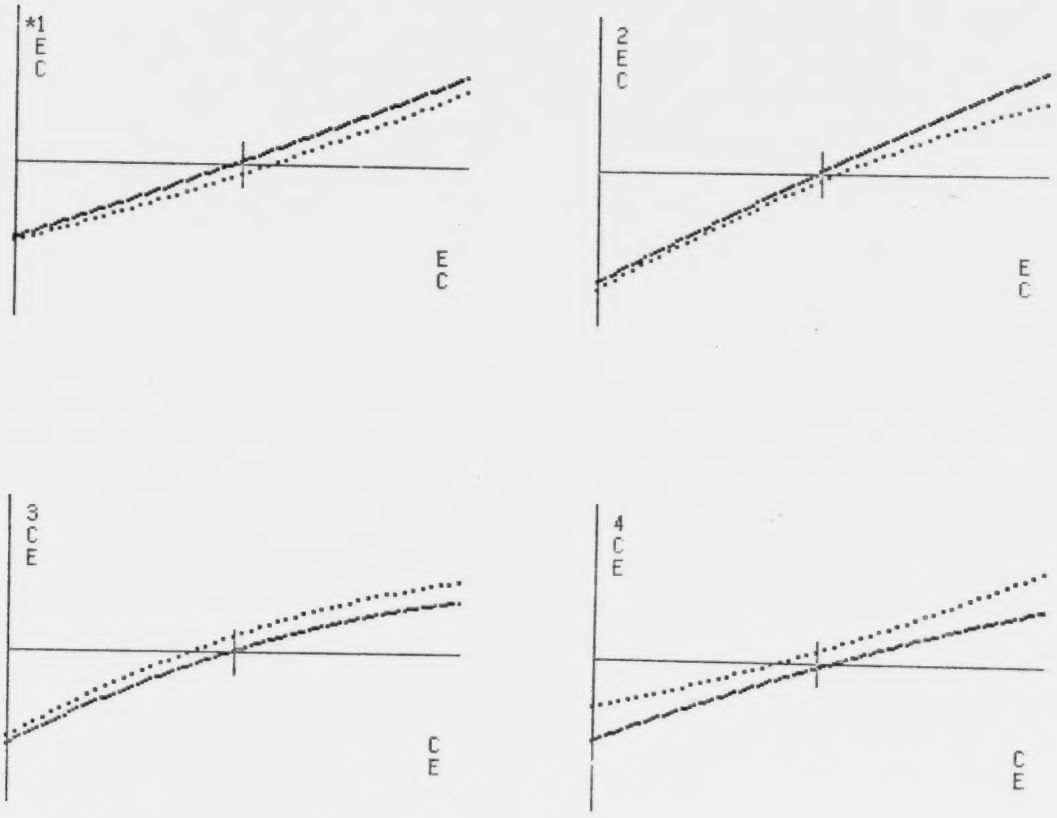
Figure 8 shows the effects for the four ethnic groups on "Would John" Factor VII, Responsible Self-Appraisal. Significant differences were noted in the way that experimentals and controls in each of the ethnic groups perceived John. Overall, experimental students saw John as engaging in responsible self-appraisal, with only the lowest self-image level blacks and Indians perceiving John as not having this attribute.

Figure 9 shows the computer plots for the four ethnic groups for "Would John" Factor VIII, Deliberate Self-Correction. Experimental white and Mexican-American children, especially at the mid self-image level range, perceived John as a person who would deliberately engage in self-correcting behavior. Although no significant interaction was noted, it would appear that experimental blacks at high self-image levels tended to share this view of John but low and mid level blacks did not. Indians in the experimental group differed from their control counterparts only at the mid self-image level, where they perceived John as not having this characteristic.



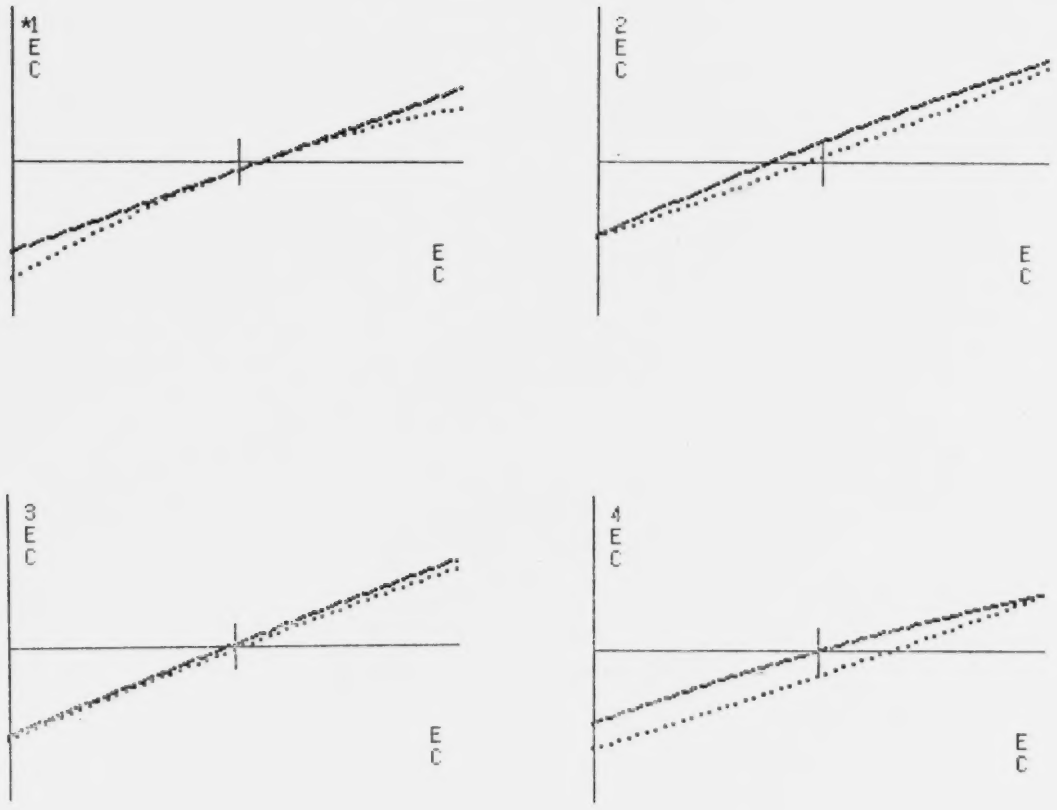
*1 = White
2 = Black
3 = Mexican-American
4 = Indian
E = Experimental (— · — · —)
C = Control (·····)

Figure 5. Computer plots of the relationship between factor score and self-image level for Factor IV (Deferred Gratification) on "Would John" instrument.



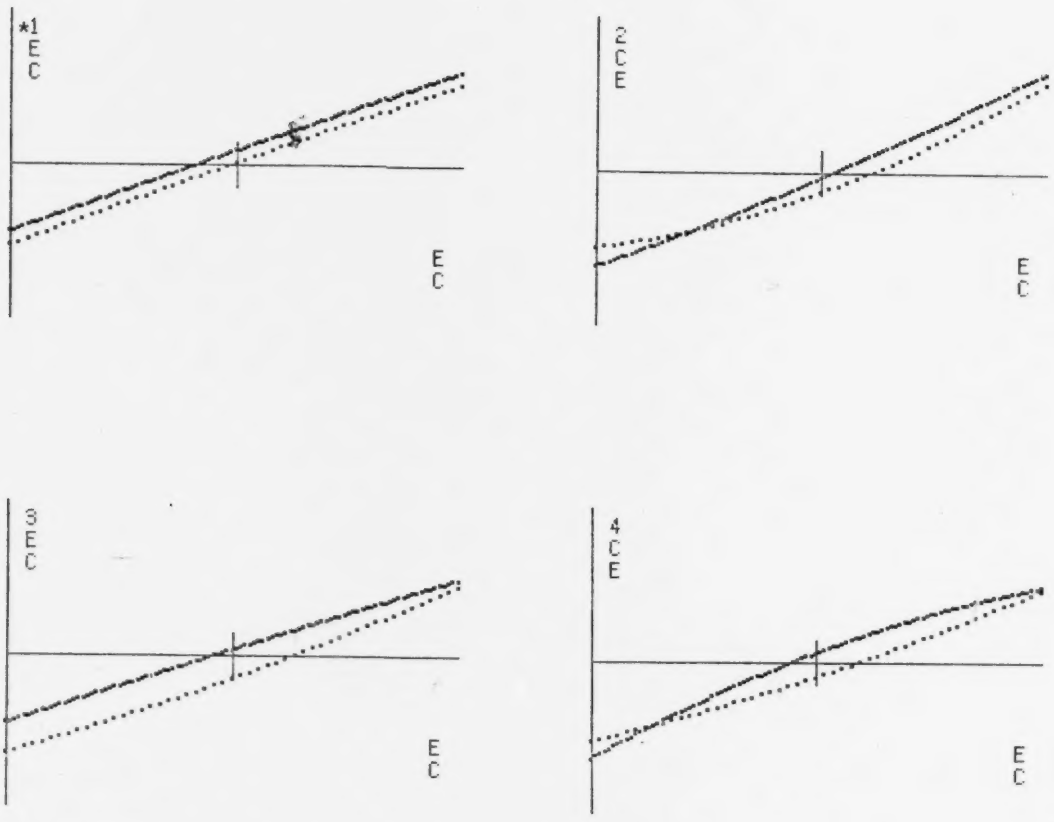
*1 = White
2 = Black
3 = Mexican-American
4 = Indian
E = Experimental (———)
C = Control (·····)

Figure 6. Computer plots of the relationship between factor score and self-image level for Factor V (Control over Events and Others) on "Would John" instrument.



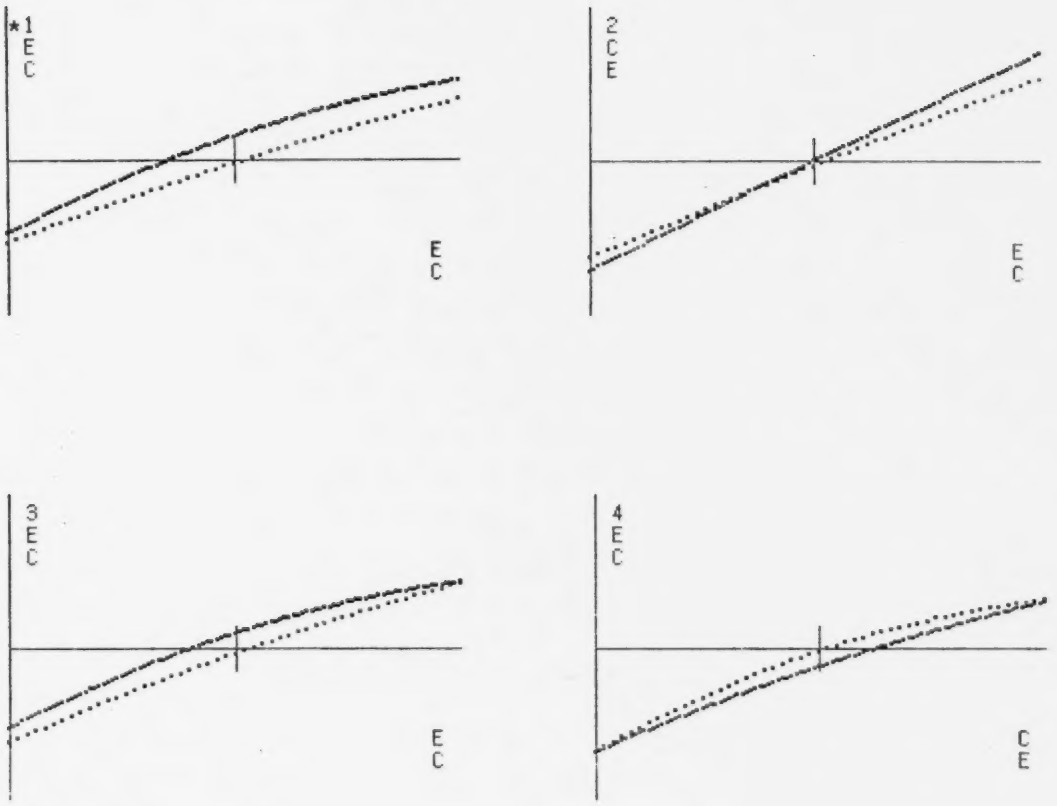
*1 = White
2 = Black
3 = Mexican-American
4 = Indian
E = Experimental (~~~~)
C = Control (·····)

Figure 7. Computer plots of the relationship between factor score and self-image level for Factor VI (Social Acceptability) on "Would John" instrument.



*
1 = White
2 = Black
3 = Mexican-American
4 = Indian
E = Experimental (— — —)
C = Control (·····)

Figure 8. Computer plots of the relationship between factor score and self-image level for Factor VII (Responsible Self-Appraisal) on "Would John" instrument.



*1 = White
2 = Black
3 = Mexican-American
4 = Indian
E.= Experimental (———)
C = Control (·····)

Figure 9. Computer plots of the relationship between factor score and self-image level for Factor VIII (Deliberate Self-Correction) on "Would John" instrument.

In review of the results for the eight factors in the "Would John" instrument, it can be seen that John, the hero of the film, was viewed differently by the four ethnic groups. Only on two factors (Deferred Gratification, Responsible Self-Appraisal) was there a clear-cut and generally more favorable perception of John by all four experimental groups than by control groups.

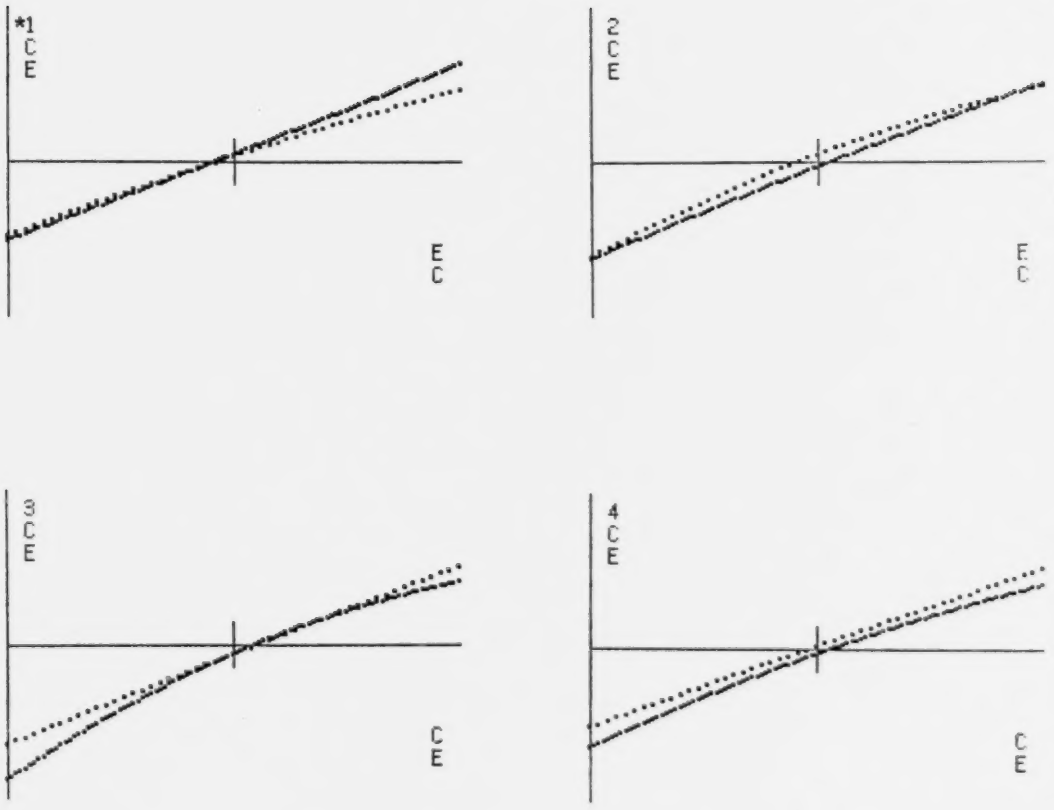
Results for the Self-Report Instrument, "Would You"

Figure 10 shows the computer plots for all four ethnic groups for the first of the "Would You" factors, Corrective Self-Appraisal. Indian experimental groups were significantly lower than their counterparts at all levels. (See Appendix G-2.) Mexican-Americans appeared to differ at the low self-image level but this difference diminished at the mid self-image level and reappeared somewhat at the high self-image level. Mid level black experimentals rated themselves somewhat lower than did the black controls. Thus, for all three minorities there was a tendency for experimentals to rate themselves slightly more critically on Factor I, Corrective Self-Appraisal. No significant effects were noted for whites.

Figure 11 shows the effects for the four ethnic groups on "Would You" Factor II, Leadership and Self-Assertion. White, black and Mexican-American experimental groups were significantly lower than their counterparts at all self-image level ranges. This also appeared to be the case for mid to low self-image level Indians.

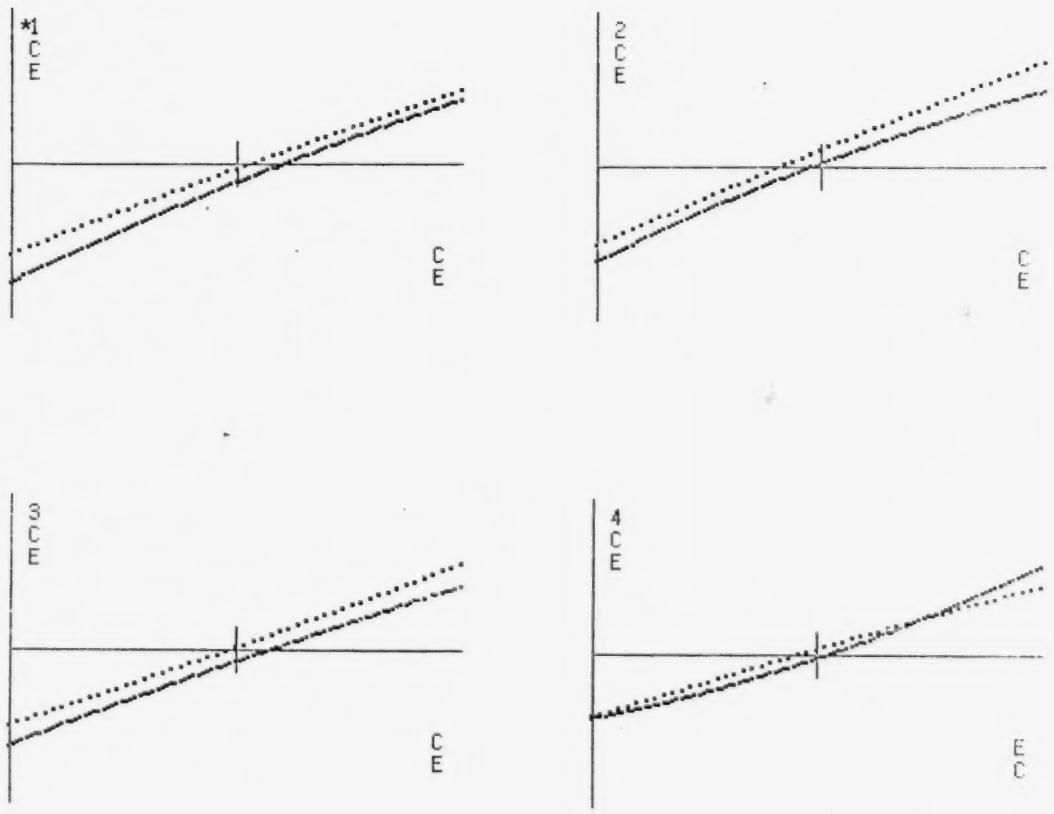
Figure 12 shows results for the four ethnic groups for "Would You" Factor III, Verbal Persuasiveness. Differences were noted for low self-image level blacks and Indians; in both cases the experimental students rated themselves lower than did the controls. The low self-image black experimental students in particular were more self-critical of their verbal persuasiveness after the treatment. These differences did not appear at higher self-image levels for blacks and Indians. No significant effects were noted for whites or Mexican-Americans.

Figure 13 shows the main effects for the four ethnic groups for "Would You" Factor IV, Ethnic Identity. On this factor, low self-image white and Indian experimental groups were lower than their counterparts. This difference was extreme for Indians and was apparent to a lesser degree at mid and high self-image levels.



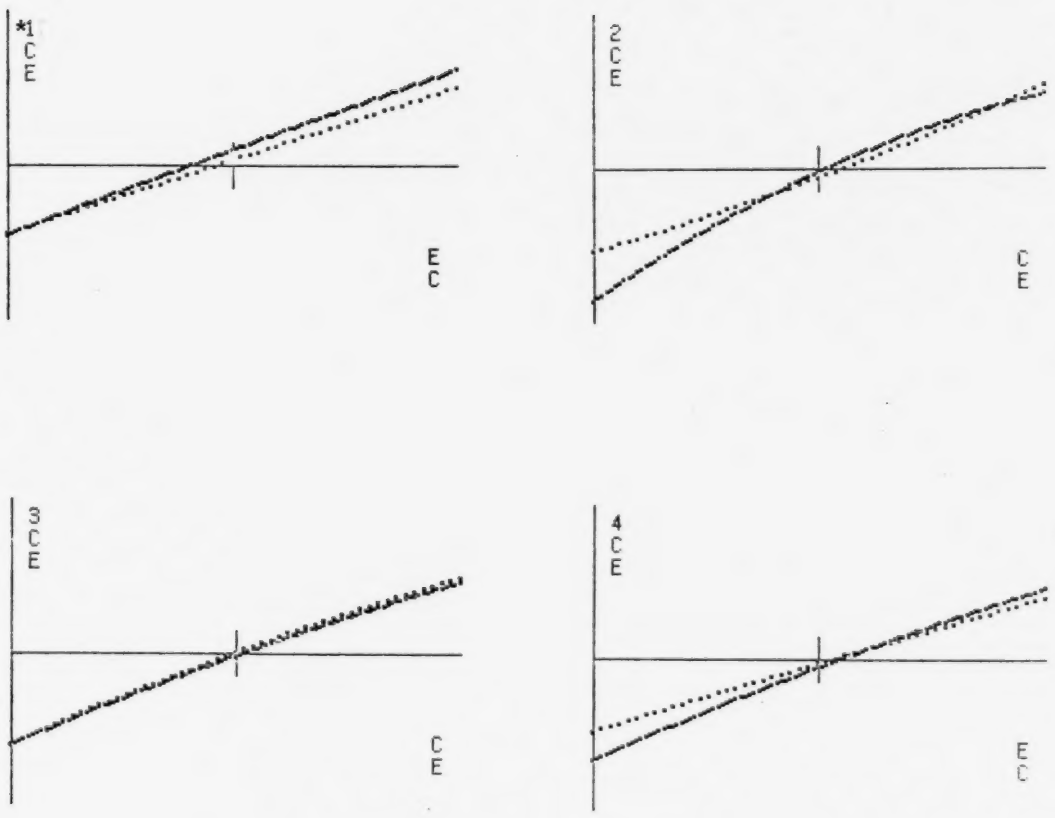
*
1 = White
2 = Black
3 = Mexican-American
4 = Indian
E = Experimental (—·—·—)
C = Control (·····)

Figure 10. Computer plots of the relationship between factor score and self-image level for Factor I (Corrective Self-Appraisal) on "Would You" instrument.



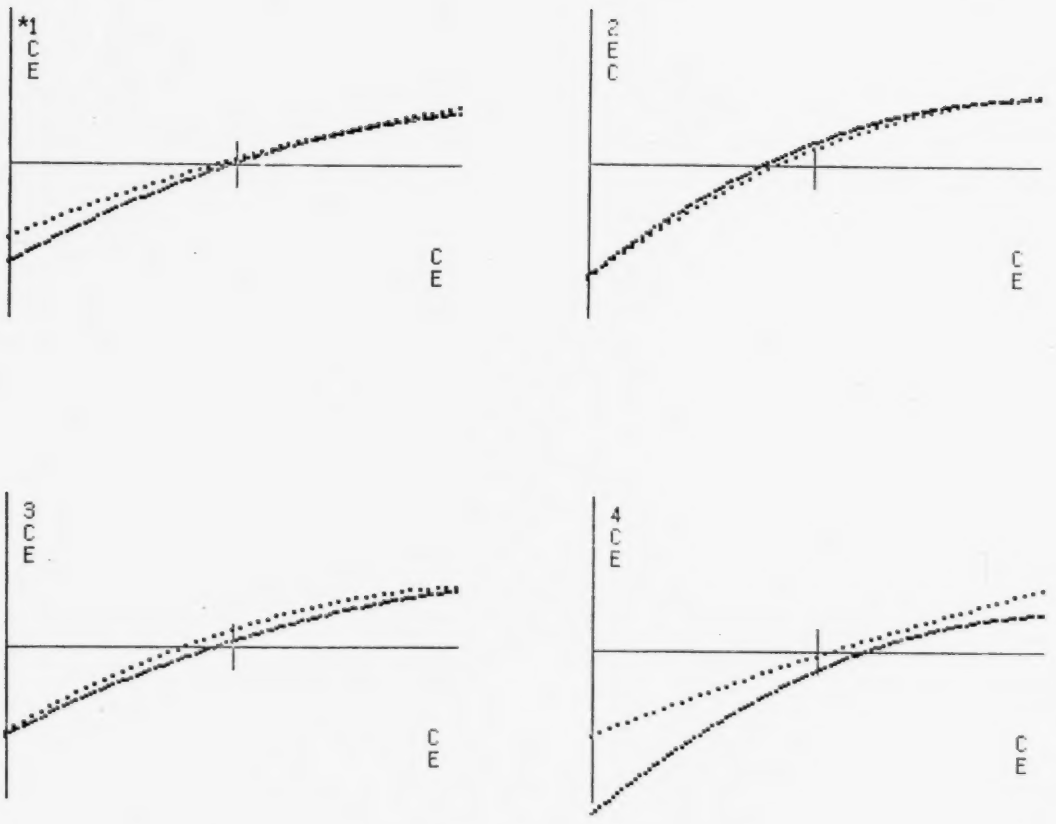
*1 = White
2 = Black
3 = Mexican-American
4 = Indian
E = Experimental (———)
C = Control (.....)

Figure 11. Computer plots of the relationship between factor score and self-image level for Factor II (Leadership and Self-Assertion) on "Would You" instrument.



*1 = White
2 = Black
3 = Mexican-American
4 = Indian
E = Experimental (———)
C = Control (.....)

Figure 12. Computer plots of the relationship between factor score and self-image level for Factor III (Verbal Persuasiveness) on "Would You" instrument.



*
1 = White
2 = Black
3 = Mexican-American
4 = Indian
E = Experimental (———)
C = Control (.....)

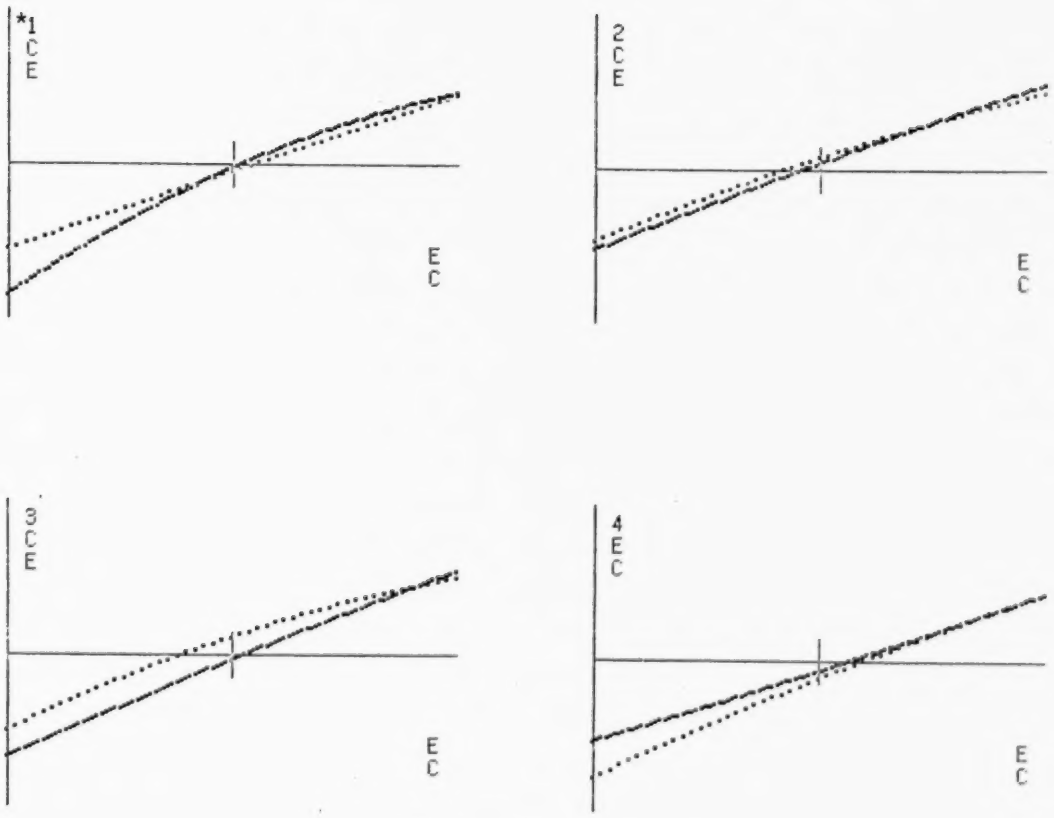
Figure 13. Computer plots of the relationship between factor score and self-image level for Factor IV (Ethnic Identity) on "Would You" instrument.

In view of the nature of this characteristic, ethnic identity, special note should be taken of the critical way that the experimental Indians rated themselves. Because the "Would You" instrument was answered after the "Would John" instrument this self-critical rating occurred after they had previously rated John, the black hero of the film, as having a high ethnic identity (see Figure 3, page 14).

Figure 14 shows the results for the four ethnic groups for "Would You" Factor V, Educational Affinity. Whites, Mexican-Americans and Indians all differed at the low self-image levels but the Indians were affected in an opposite way than were the others. Specifically, the low self-image Indian experimental children rated themselves higher than their counterpart controls in terms of educational affinity, but this tendency was not maintained for higher self-image Indian children. It is worth noting that the Mexican-American experimental children rated themselves sharply lower than their counterpart controls at all self-image levels except the very highest. There were no differences between experimentals and controls for blacks.

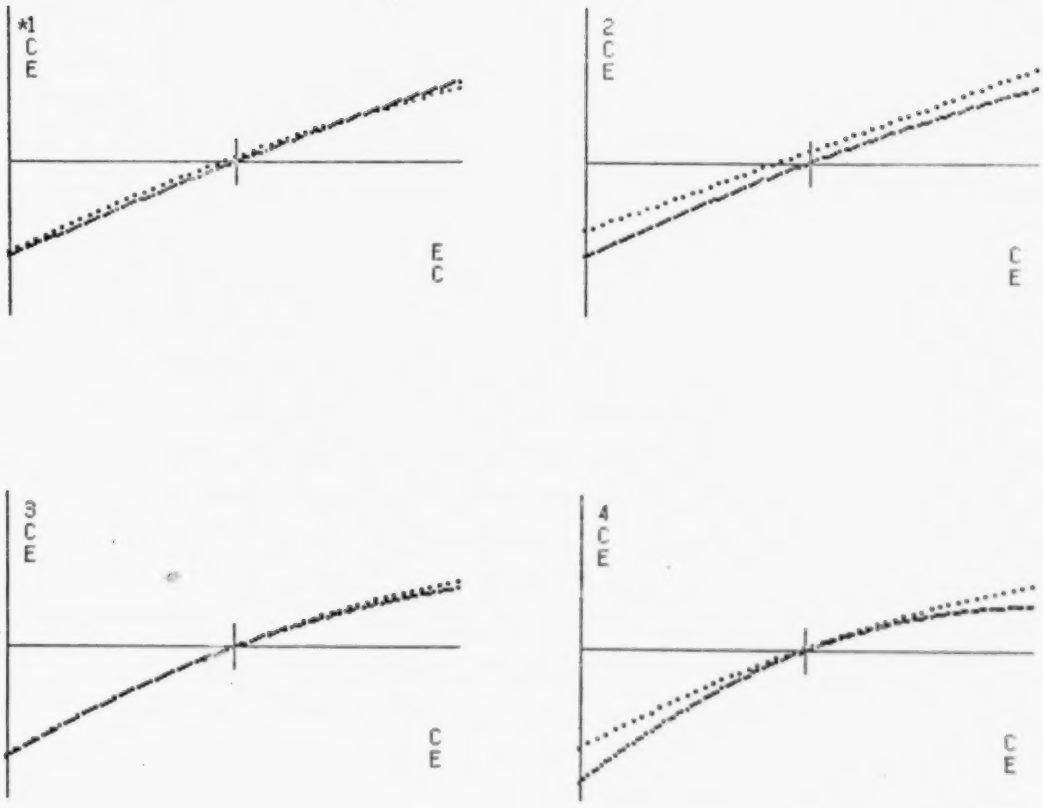
Figure 15 shows the main effects for the four ethnic groups for "Would You" Factor VI, Making Intelligent Choices. Blacks and Indians showed differences at the low self-image level with experimental children in both ethnic groups being more self-critical than their counterpart controls. This difference was maintained at mid and high self-image levels for blacks but not for Indians. Whites and Mexican-Americans showed no significant differences between experimental and control groups in terms of self-rating on making intelligent choices.

Figure 16 shows the effects for the four ethnic groups for "Would You" Factor VII, Persistence toward Delayed Reward. Blacks and Mexican-Americans were affected at the low self-image level but in opposite ways. Black experimental children were higher while the Mexican-Americans were lower than their counterpart controls at the low self-image level. Overall, by inspection of the computer plots, it is evident that the bulk of the students in all four ethnic groups were not very much affected with respect to the factor of persistence toward delayed reward.



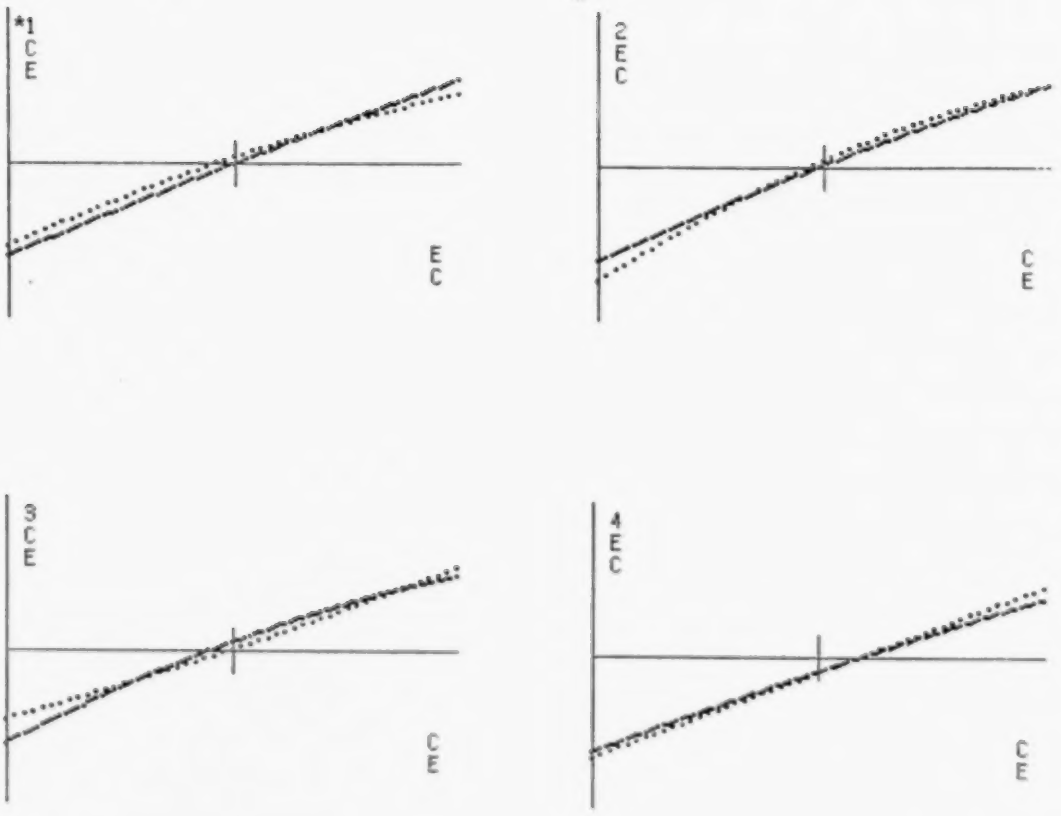
* 1 = White
2 = Black
3 = Mexican-American
4 = Indian
E = Experimental (~~~)
C = Control (.....)

Figure 14. Computer plots of the relationship between factor score and self-image level for Factor V (Educational Affinity) on "Would You" instrument.



*1 = White
2 = Black
3 = Mexican-American
4 = Indian
E = Experimental (—·—·—)
C = Control (·····)

Figure 15. Computer plots of the relationship between factor score and self-image level for Factor VI (Making Intelligent Choices) on "Would You" instrument.

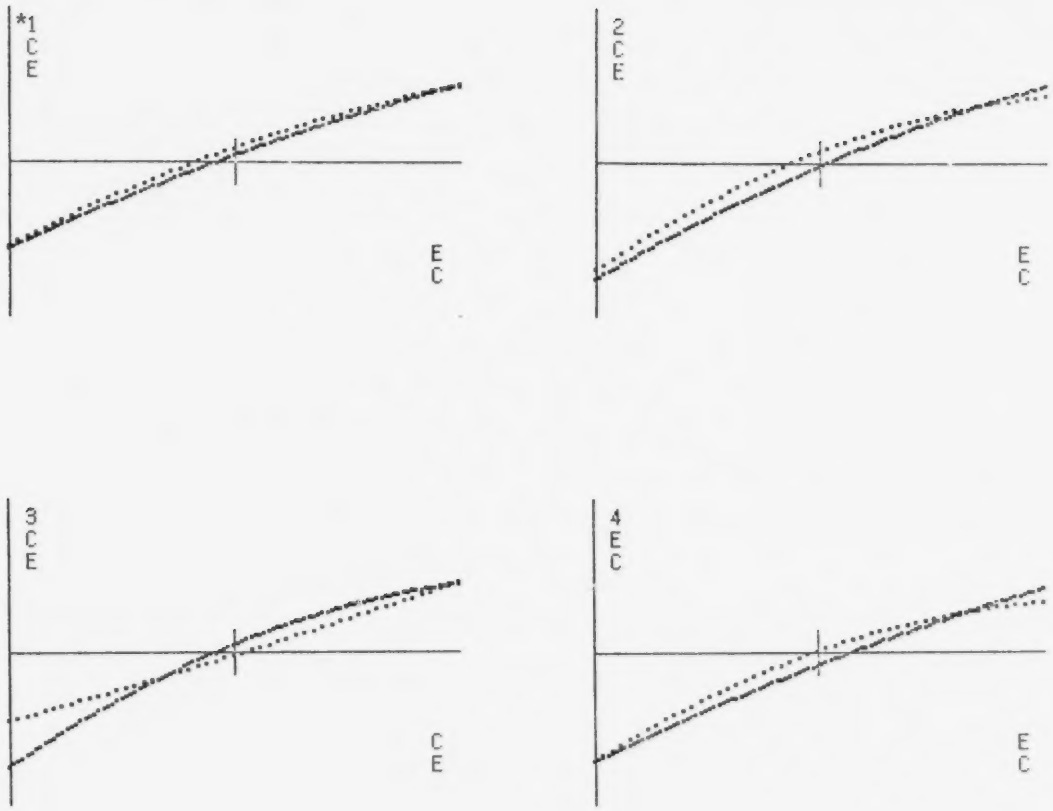


*1 = White
2 = Black
3 = Mexican-American
4 = Indian
E = Experimental (—— —)
C = Control (·····)

Figure 16. Computer plots of the relationship between factor score and self-image level for Factor VII (Persistence toward Delayed Reward) on "Would You" instrument.

Figure 17 shows the results for the four ethnic groups for "Would You" Factor VIII, Personal Planning for the Future. Mexican-American low self-image experimental children tended to rate themselves more critically than did their counterpart controls. However, this was reversed for mid and higher self-image level Mexican-Americans. Black experimental children tended to rate themselves a little more critically than did the controls except at the highest self-image level and the same was true for Indians. Whites were apparently unaffected in terms of personal planning for the future.

In reviewing the computer plots for the "Would You" factors the most noticeable effects of the John Mercer Langston film and associated classroom discussion were on the low self-image level children. In many of the important differences noted at this level the experimental children were lower than their counterparts. The exceptions were Indians on educational affinity and Mexican-Americans on persistence toward delayed reward.



*1 = White
2 = Black
3 = Mexican-American
4 = Indian
E = Experimental (~~~)
C = Control (·····)

Figure 17. Computer plots of the relationship between factor score and self-image level for Factor VIII (Personal Planning for the Future) on "Would You" instrument.

Results of Semantic Differential Instruments

The three semantic differential instruments were intended to tap the construct of "Self" at a general level. One instrument was used to measure the present self-concept, another to measure the ideal self-concept, and the third to measure the reflected self.

As can be seen in Table 1, the differences for all three instruments were in the same direction; namely, the experimental groups were more self-critical than were the control groups. This tendency was consistent for all ethnic groups and was significant for whites on "How I'd Like to Be" and "Most of My Classmates Think I Am" , for blacks on all three instruments, for Mexican-Americans on "How I Am" and "How I'd Like to Be", and for Indians on "How I'd Like to Be." Thus Table 1 shows treatment effects within ethnic groups.

TABLE 1

t Values, Degrees of Freedom and
Significance of Difference within Ethnic Groups
for Responses on the Semantic Differential Instruments

	How I Am		How I'd Like to Be		Most of My Classmates Think I Am	
	Experimental Group	Control Group	Experimental Group	Control Group	Experimental Group	Control Group
*1	see **.	**.72 (205) NS		4.52 (204) .001		3.34 (203) .001
2		7.04 (227) .001		7.03 (219) .001		2.63 (218) .01
3		2.70 (127) .01		3.55 (127) .001		.45 (127) NS
4		1.42 (102) NS		4.69 (102) .001		.81 (101) NS

*1 = Whites
2 = Blacks
3 = Mexican-Americans
4 = Indians

**Indicates t value, (DF) and significance of difference between experimental and control groups within each ethnic group.
Findings are shown under the group having the higher reported self-concept.

Table 2 shows the results across ethnic groups for each semantic differential instrument. On the "How I Am" instrument it can be seen that black experimental students rated themselves significantly higher than did the whites, Mexican-Americans, or Indians. White experimental students rated themselves significantly higher than Mexican-Americans and Indians. Indian and Mexican-American ratings were not significantly different. A similar pattern existed for the control groups.

On the "How I'd Like to Be" instrument the white experimental students rated themselves significantly higher than blacks, Mexican-Americans, and Indians. Black experimental students rated themselves significantly higher than did the Mexican-Americans and Indians. There was no significant difference between Mexican-American and Indian experimental students. White control students and black control students both rated themselves significantly higher than did Mexican-Americans and Indians.

On the "Most of My Classmates Think I Am" instrument the black experimental students rated themselves significantly higher than did the whites, Mexican-Americans and Indians. No other significant differences were noted among the experimental groups. Among control groups, the blacks again rated themselves higher than did the whites, Mexican-Americans and Indians. The white control students also rated themselves higher than the Mexican-Americans. No other significant differences were observed among the control groups.

TABLE 2

t Values, Degrees of Freedom and
Significance of Difference across Ethnic Groups,
by Treatment Condition, for Responses
on the Semantic Differential Instruments

Instrument: How I Am

Experimental Groups

Experimental Groups	*1	2	3	4
1	see **		**6.31 (162) .001	7.16 (159) .001
2	4.31 (212) .001		9.50 (172) .001	10.92 (169) .001
3				
4			.22 (119) NS	

Control Groups

Control Groups	1	2	3	4
1			3.97 (170) .001	5.53 (159) .001
2	10.66 (220) .001		12.57 (182) .001	14.33 (160) .001
3				1.31 (110) NS
4				

*1 = Whites
2 = Blacks
3 = Mexican-Americans
4 = Indians

**Indicates t value, (DF) and significance level.

Findings are shown in the row of the group having higher self-concept. Thus black experimental group subjects had higher self-concept than white experimental group subjects at the .001 level.

TABLE 2 (cont.)

Instrument: How I'd Like to Be

Experimental Groups

Experimental Groups	*1	2	3	4
1		**2.91 (207) .01	4.98 (162) .001	8.19 (159) .001
2			2.84 (167) .01	5.25 (164) .001
3				1.44 (119) NS
4				

Control Groups

Control Groups	1	2	3	4
1			9.06 (169) .001	7.62 (159) .001
2	.73 (216) NS		9.74 (179) .001	8.00 (157) .001
3				1.51 (110) NS
4				

*1 = Whites
2 = Blacks
3 = Mexican-Americans
4 = Indians

**Indicates t value, (DF) and significance level.

Findings are shown in the row of the group having higher self-concept.

TABLE 2 (cont.)

Instrument: How My Classmates Think I Am

Experimental Groups

Experimental Groups	*1	2	3	4
1			**.22 (161) NS	
2	4.10 (206) .001		3.99 (167) .001	2.95 (163) .01
3				
4	.95 (157) NS		1.10 (118) NS	

Control Groups

Control Groups	1	2	3	4
1			2.81 (169) .01	1.16 (157) NS
2	4.06 (215) .001		5.57 (178) .001	4.25 (156) .001
3				
4			1.45 (110) NS	

*1 = Whites
2 = Blacks
3 = Mexican-Americans
4 = Indians

**Indicates t value, (DF) and significance level.

Findings are shown in the row of the group having higher self-concept.

Table 3 shows the mean, variance and N for the experimental and control group students for each ethnic group for each semantic differential instrument. The means, with a low score indicating high self-concept, are presented in rank order (for each instrument) so that the trends for both experimental and control group students over all ethnic groups may be examined. Results shown in Table 3 are presented for purposes of illustration and were not subjected to statistical tests.

It can be seen that black control students consistently had the highest self-concept when the referent was the present self, the ideal self, and the reflected self. Black experimental students also had high self-appraisals on present self and reflected self; however, they had relatively lower self-appraisals on the instrument used to assess ideal self.

Mexican-American experimental students were lowest in terms of present self and reflected self, and next to the lowest in ideal self.

Indian experimental students were next to lowest in present self, lowest in ideal self, but had somewhat higher self-appraisals on the instrument which assessed reflected self.

In reviewing the semantic differential results, the trends suggested that

- for each ethnic group, the control group generally had higher self-concepts than did the counterpart experimental group;
- on evaluation of the present self the black experimental and control students had highest self-appraisals of the four ethnic groups while Mexican-Americans and Indians rated themselves low;
- on evaluation of the ideal self the white experimental students and black control students had the highest self-appraisals while the Indians rated themselves low;
- on evaluation of the reflected self the black experimental and control students had the highest self-appraisals of the four ethnic groups while the Indians rated themselves low;
- ranking of all experimental groups and controls indicated that black control students had highest self-ratings and the Indian and Mexican-American experimental students were rather consistently low.

TABLE 3

Ranking of Groups in Mean Self-Concept
by Type of Semantic Differential Instrument

	How I Am				How I'd Like to Be				Most of My Classmates Think I Am			
	Group	$\bar{X}$	Var	N	Group	$\bar{X}$	Var	N	Group	$\bar{X}$	Var	N
High Self-Concept	*2C	1.76	.24	(117)	2C	1.19	.11	(114)	2C	2.03	.70	(113)
	2E	2.00	.28	(112)	1C	1.20	.12	(104)	2E	2.26	.59	(107)
	1C	2.13	.28	(105)	1E	1.32	.24	(102)	1C	2.35	.46	(104)
	1E	2.16	.26	(102)	3C	1.41	.17	(67)	4C	2.45	.51	(45)
	3C	2.32	.32	(67)	2E	1.44	.36	(107)	4E	2.54	.59	(58)
	4C	2.39	.26	(45)	4C	1.47	.23	(45)	3C	2.61	.67	(67)
Low Self-Concept	4E	2.46	.26	(59)	3E	1.63	.47	(62)	1E	2.64	.75	(101)
	3E	2.47	.34	(62)	4E	1.74	.35	(59)	3E	2.67	.67	(62)

*1 = Whites
2 = Blacks
3 = Mexican-Americans
4 = Indians
E = Experimentals
C = Controls

CONCLUSIONS

Effects for American Indians

The general findings of this study as to the main effects of the film John Mercer Langston and the associated classroom discussion on American Indians are similar to the findings previously established for the white, black and Mexican-American ethnic groups. Specifically, results suggested that Indian students' ratings of present self, ideal self, and reflected self (aspects of the self-concept construct as measured on three semantic differential instruments) were somewhat more self-critical following exposure to the educational experience. These trends suggest that the processes of self-examination and self-appraisal which were recommended by teachers during the Langston film discussion periods, e.g., calling for openness and frankness in a group setting, may have led the Indian experimental students to be more candid in their self-evaluation than were their counterpart controls. For many students then, this short-term effect of the film and discussion may have lowered self-concept as measured by the semantic differential scales. However, this treatment may have established a more realistic self-image and a greater level of self-awareness, both of which would be important, in the long run, as a first step in a sustained program of self-development.

As indicated by the "Would John" film report instrument, most of the Indian experimental group children perceived John as exhibiting high ethnic identity, independent personal action, deferred gratification, social acceptability, and responsible self-appraisal. They perceived him as having less independent personal development, control over events and others, and deliberate self-correction than did the control students. However, these general tendencies were not necessarily consistent within the Indian experimental group. That is, high, mid and low self-image level students frequently perceived John differently on the aforenamed factors.

As indicated by the "Would You" self-report, which had parallel items to the film report instrument, the Indian experimental group tended to view itself more critically than the control group on the factors: corrective self-appraisal, verbal persuasiveness, ethnic identity, and,

to some extent, on leadership and self-assertion, making intelligent choices and personal planning for the future. They evaluated themselves more favorably than did the control students on educational affinity. The experimental and control groups evaluated themselves about the same on persistence toward delayed reward. Although these tendencies were noted, it seems clear that there is a substantial difference within the Indian group as to the way their self-perceptions were influenced. That is, low, mid and high self-image experimental and control differences were not uniform.

Generality across Ethnic Groups

To the extent that all four experimental groups tended toward lower semantic differential evaluations than did the controls, it seems that the educational experience had grossly similar effects across ethnic lines. However, inspection of the pattern of results on the other instruments indicated that the ethnic groups frequently differed on the various "Would John" and "Would You" factors. These were not only differences of degree but also differences of direction. Differences were also evident as indicated by inspection of individual items on the film report and self-report instruments.

More specifially, relative to the control students, white experimental students tended to rate John highly but were neutral or negative about themselves. Blacks were about balanced in their appraisal of John and generally negative about themselves. Mexican-Americans were also about balanced in their appraisal of John but tended to be negative toward themselves. Indian experimentals, on the other hand, were quite favorable in their appraisal of John, relative to the controls, yet were quite negative in their self-appraisals.

Perhaps the most interesting differences were not across ethnic groups but within ethnic groups. Inspection of the computer-generated plots and the significance tests of the regression coefficients for each ethnic group revealed a number of instances in which the low, mid and high self-image students within a given ethnic group had differing and even opposite perceptions of John and themselves. This would suggest that educational experiences addressed toward any one ethnic group should be multiple in nature, focussing in concert on separate aspects of the desired self-concept modification within that ethnic group, e.g., for low self-image students in particular.

Recommendations

Recommendations from this exploratory study fall into two areas, needs for further research and suggested materials usage.

- The frequency with which the present results differed across ethnic groups and across self-image levels within each ethnic group strongly suggests that subsequent studies might be most profitable if they focused on how materials affect children at a particular self-image level within a given ethnic group.

Recommendations for materials development are necessarily tentative since only one set of stimulus materials was used in this study and because of the study's exploratory emphasis.

- It is tentatively recommended that instructional materials specifically prepared for one ethnic group not be used for other ethnic groups, in spite of the obvious economies of such an approach. Role model identification is not likely to be consistent across ethnic groups, and the feasibility for emulation of the model may be quite different, e.g., an Indian cannot as easily adopt the characteristics of a black role model as he might adopt the characteristics of a member of his own ethnic group. There is, of course, no guarantee of effectiveness when a role model is of the same ethnic group, but this would at least avoid additional barriers to communication.
- It is tentatively recommended that instructional materials specifically prepared for one ethnic group not be assumed as having the same import for high self-image and low self-image students within that ethnic group. Rather, the instructional materials should be used differently with these subgroups; or materials should be made that are demonstrated to be effective with lower self-imate children.

- It is recommended that a given educational experience, such as the stimulus film for students, teacher training film and structured class discussion used within this study, be thought of only as an initial activity. It should be followed by additional educational materials that will take the child from his new level of frankness and candid self-appraisal into a chain of activities which are reinforcing and incremental. Hopefully, these would lead toward a sense of security and dignity in the self-concept as well as a posture of purposeful self-development.

APPENDIX A

A-1 DIRECTIONS FOR TEST ADMINISTRATION

A-2 PACKET OF ASSESSMENT INSTRUMENTS

APPENDIX A-1

DIRECTIONS FOR TEST ADMINISTRATION

1. Ask the students for their attention. When you have it, say,

   This class and a few others in the Pine Ridge schools are being given an opportunity to be a part of an important project being done by the American Institutes for Research in California. They have brought some materials which have helped other students your age to find out more about what they think of themselves. You will get the same chance today. By paying close attention, this can be an int[illegible]ting experience for you. (Pause.) Raise your hand if you need something to write with.

2. Deliver pencils. Say,

   You are about to receive a packet of materials. Do not open it until I tell you.

3. Pass out the packets, making sure each student gets only one packet. Say,

   Take only the strip of paper that is on the top out of the packet. Quickly fill in your first and last name, the name of this school, your grade, your age, and check whether you are a boy or girl. (Pause.) Is everyone ready to pass these sheets in? (Allow a few more seconds.) Please pass them to the front of the room and wait for me to collect them.

4. Collect papers. Say,

   The other papers in the packet give you a chance to tell the way you feel about yourself. There are no right or wrong answers. No one will see your answers but the people at the American Institutes for Research. You do not have to put your name on any of these tests. Now take the paper that has the words, "I AM" in a box at the top. I'll read the instructions with you.

5. Read aloud the instructions on the inventory. Say,

   Now do the next three pages in the same way. As soon as you are finished, put your pencil down, turn your paper over, and put it to one side of your desk.

6. When the students appear to be finished, say,

   Now take out the next paper. It says, "WOULD JOHN?" at the top. I'll

read the directions with you.

7. Read aloud the instructions on the inventory. Say,

   Finish this page and the rest of the pages in the same way. When you are done, put your pencil down, turn your paper over, and put it with the other one on your desk.

8. When the students appear to be finished, say,

   Now take out the last paper. It says, "WOULD YOU?" at the top. I'll read the directions with you.

9. Read aloud the instructions on the inventory. Say,

   Finish this page and the rest of the pages in the same way. When you are done, put your pencil down, turn your paper over, and put it with the other one on your desk.

10. When the students appear to be finished, say,

    As you finish, put the materials back in the packet and seal it. Please pass the packet to the front of the room. Thank you very much for your help in this part of the project. I am sure you found it interesting to see how you feel about yourself.

11. Dismiss the group or move into the next study activity.

APPENDIX A-2

PACKET OF ASSESSMENT INSTRUMENTS

(Cover Sheet)

Please answer all of the following:

Name _____
First Last

School _____

Grade _____

Age _____

Check one: Boy _____ Girl _____

When you are finished, this paper will be collected.

Wait for instructions before you take any other papers from the envelope.

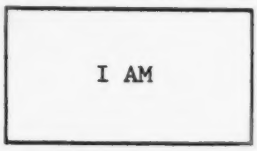
1. _____

2. _____

APPENDIX A-2 (cont.)

Semantic Differential Instruments _____

This test has many different pairs of words along the sides of the page and boxed words at the top of the page. The paired words are used to describe how you feel about the words in the box. Look at a sample item:



HEALTHY	X	___	___	___	___	SICK
STRONG	___	X	___	___	___	WEAK
BIG	___	___	X	___	___	LITTLE
FAST	___	___	___	___	X	SLOW

Look at the first pair of words: HEALTHY _ _ _ _ _ SICK. If you think you are very healthy, you would put an X on the line next to healthy, as shown above. (If you thought you were very sick, you would put an X on the line right next to sick. If you thought you were in between healthy and sick, you would put an X on the line in the middle.)

Look at the second pair of words: STRONG _ _ _ _ _ WEAK. The X on the second line next to strong means you are strong, but not very strong.

The third pair of words, BIG _ _ _ _ _ LITTLE, would show that you thought you were in between big and little.

The last pair of words, FAST _ _ _ _ _ SLOW, would show that you thought you were very slow.

You should put only one X between each pair of words. Put the X where it best describes how you feel about the words in the box. Remember to put down the X on how you really feel, and not on how you think you should feel.

If you have questions, ask them now.

APPENDIX A- 2 (cont.)

HOW I AM

GOOD	____	____	____	____	____	BAD
BEAUTIFUL	____	____	____	____	____	UGLY
CLEAN	____	____	____	____	____	DIRTY
KIND	____	____	____	____	____	CRUEL
HAPPY	____	____	____	____	____	SAD
VALUABLE	____	____	____	____	____	WORTHLESS
NICE	____	____	____	____	____	AWFUL
HONEST	____	____	____	____	____	DISHONEST
FAIR	____	____	____	____	____	UNFAIR
PLEASANT	____	____	____	____	____	UNPLEASANT

APPENDIX A- 2 (cont.)

HOW I WOULD
LIKE TO BE

GOOD	____	____	____	____	____	BAD
BEAUTIFUL	____	____	____	____	____	UGLY
CLEAN	____	____	____	____	____	DIRTY
KIND	____	____	____	____	____	CRUEL
HAPPY	____	____	____	____	____	SAD
VALUABLE	____	____	____	____	____	WORTHLESS
NICE	____	____	____	____	____	AWFUL
HONEST	____	____	____	____	____	DISHONEST
FAIR	____	____	____	____	____	UNFAIR
PLEASANT	____	____	____	____	____	UNPLEASANT

APPENDIX A- 2 (cont.)

MOST OF MY CLASSMATES THINK I AM

GOOD	____	____	____	____	____	BAD
BEAUTIFUL	____	____	____	____	____	UGLY
CLEAN	____	____	____	____	____	DIRTY
KIND	____	____	____	____	____	CRUEL
HAPPY	____	____	____	____	____	SAD
VALUABLE	____	____	____	____	____	WORTHLESS
NICE	____	____	____	____	____	AWFUL
HONEST	____	____	____	____	____	DISHONEST
FAIR	____	____	____	____	____	UNFAIR
PLEASANT	____	____	____	____	____	UNPLEASANT

APPENDIX A-2 (cont.)

WOULD JOHN?

Directions: See how well you can describe John Langston.
Mark the box that tells how you feel about John Langston.
Here is a sample:

A. How often would John have a dollar in his pocket?

○	○	⊗	○	○
Almost never	Not very often	About half of the time	Most of the time	Almost always

If you think John would have a dollar in his pocket, you would have put an X in the circle where it says, "About half of the time."

Remember, none of the questions have right or wrong answers. They are just ways to describe someone. Raise your hand if you have any questions.

---

1. How often would John be honest about his good points and weak points?

John	○	○	○	○	○
	Almost never	Not very often	About half of the time	Most of the time	Almost always

2. How often would John feel free to say what he really thinks?

John	○	○	○	○	○
	Almost never	Not very often	About half of the time	Most of the time	Almost always

3. How often would John try to make things turn out the way he wants?

John	○	○	○	○	○
	Almost never	Not very often	About half of the time	Most of the time	Almost always

4. How often would John be a leader when friends are around?

Almost never | Not very often | About half of the time | Most of the time | Almost always

5. How often would John be happy with his skin color?

Almost never | Not very often | About half of the time | Most of the time | Almost always

6. How often would John be sure he could do things right?

Almost never | Not very often | About half of the time | Most of the time | Almost always

7. How often would John be happy with the way he looks?

Almost never | Not very often | About half of the time | Most of the time | Almost always

8. How often would John take responsibility for the things he says and does?

Almost never | Not very often | About half of the time | Most of the time | Almost always

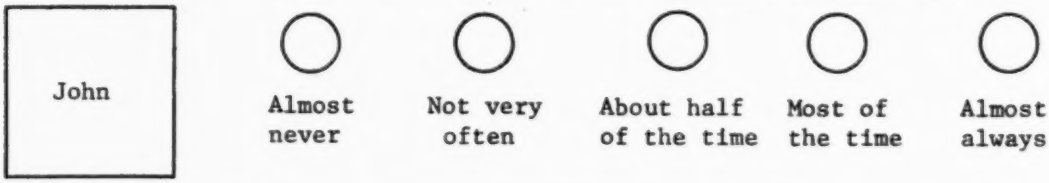
9. How often would John try to improve himself?

Almost never | Not very often | About half of the time | Most of the time | Almost always

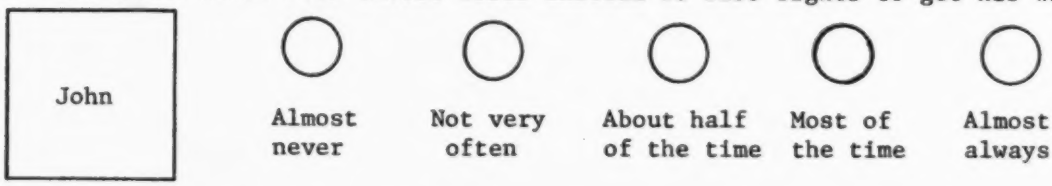
10. How often would John like to learn new things?

Almost never | Not very often | About half of the time | Most of the time | Almost always

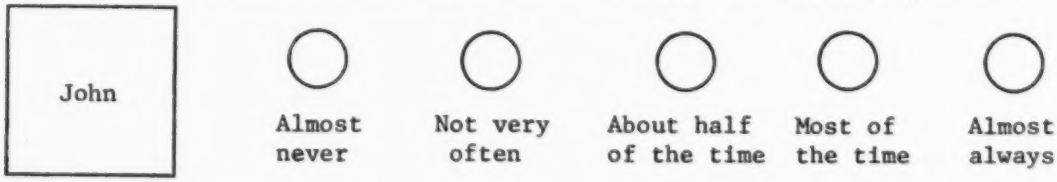
11. How often would John expect to get a good job when he grows up?



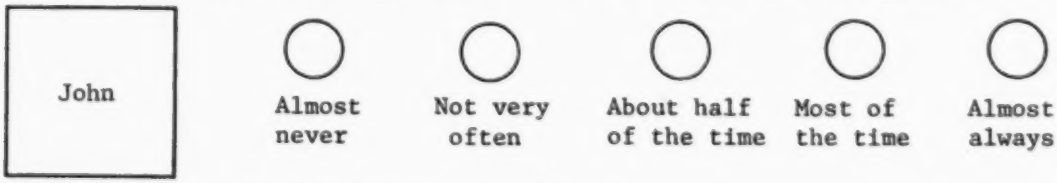
12. How often would John choose words instead of fist fights to get his way?



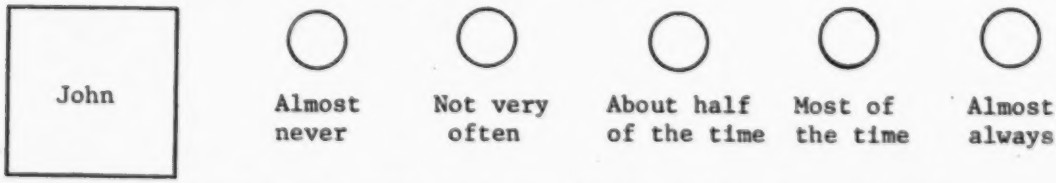
13. How often would John feel he is smart enough to solve hard problems?



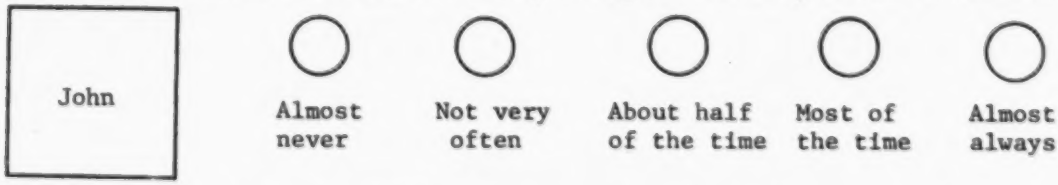
14. How often would John depend on his own effort to get things done?



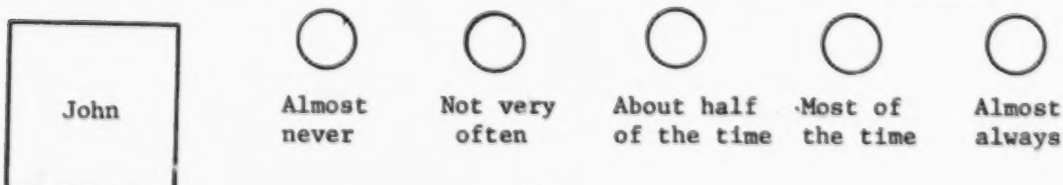
15. How often would John make good choices?



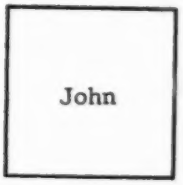
16. How often would John write and say things as clearly as his classmates?



17. How often would John think things over instead of doing something foolish?



18. How often would John learn from his mistakes and try not to do them again?



Almost never | Not very often | About half of the time | Most of the time | Almost always

19. How often would John feel like coming to school in the morning?

Almost never | Not very often | About half of the time | Most of the time | Almost always

20. How often would John make up his own mind instead of listening to other kids?

Almost never | Not very often | About half of the time | Most of the time | Almost always

21. How often would John think the teacher likes to teach him?

Almost never | Not very often | About half of the time | Most of the time | Almost always

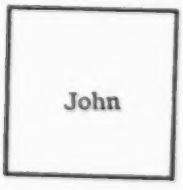
22. How often would John believe his life is valuable and important?

Almost never | Not very often | About half of the time | Most of the time | Almost always

23. How often would John stick to a hard job until he finishes it?

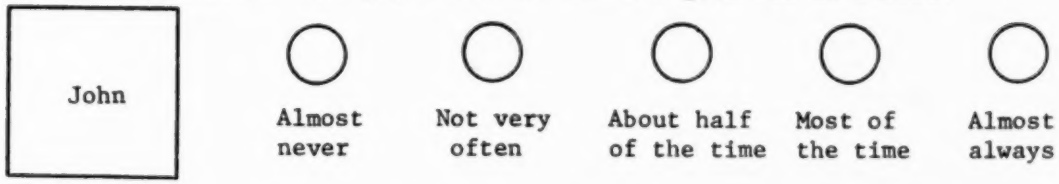
Almost never | Not very often | About half of the time | Most of the time | Almost always

24. How often would John feel happy to be who he is?

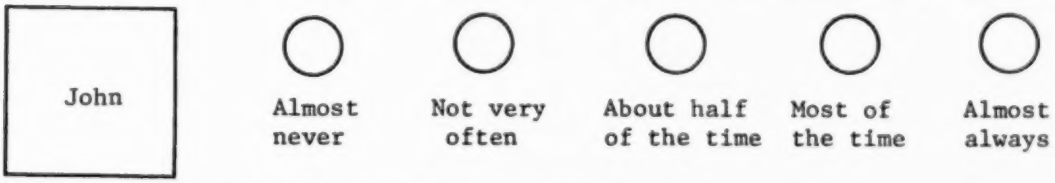


Almost never | Not very often | About half of the time | Most of the time | Almost always

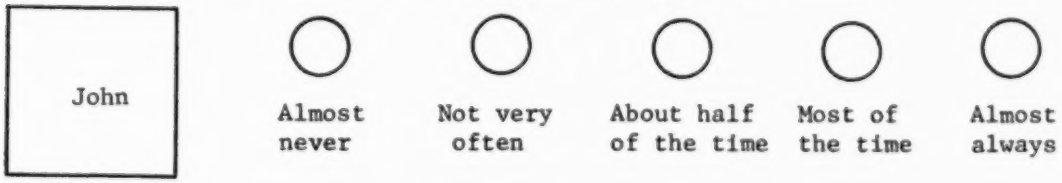
25. How often would John pay attention and not goof off in school?



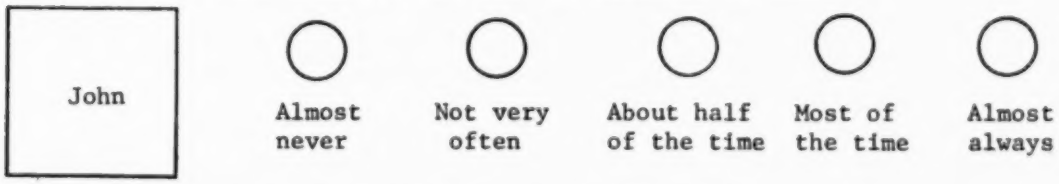
26. How often would John work hard even if the payoff wasn't very soon?



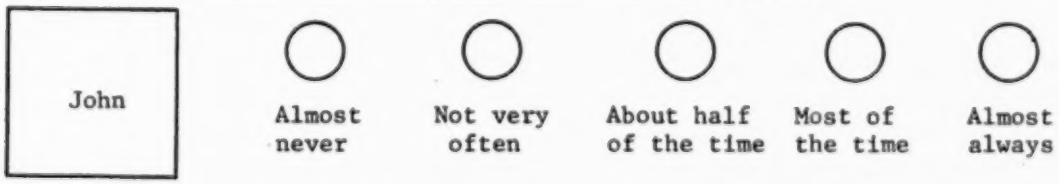
27. How often would John think that other people like him?



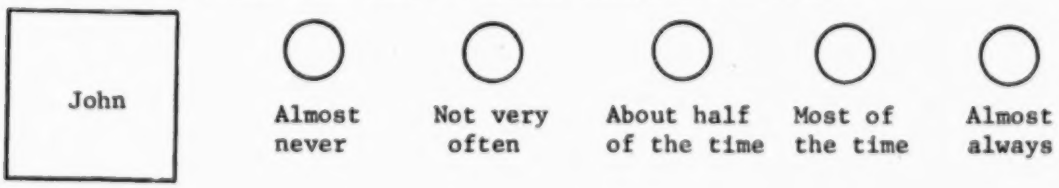
28. How often would John try his best at whatever he does?



29. How often would John make plans about his own future?



30. How often would John like to decide things for himself?



APPENDIX A-2 (Cont.)

WOULD YOU?

Directions: See how well you can describe yourself.
Mark the box that tells how you feel about yourself.
Here is a sample:

A. How often would you have a dollar in your pocket?

	Almost never	Not very often	About half of the time	Most of the time	Almost always
You	○	○	(X)	○	○

If you think you would have a dollar in your pocket, you would have put an X in the circle where it says "About half of the time."

Remember, none of the questions have right or wrong answers. They are just ways to describe yourself. Raise your hand if you have any questions.

---

1. How often would you be honest about your good points and weak points?

	Almost never	Not very often	About half of the time	Most of the time	Almost always
You	○	○	○	○	○

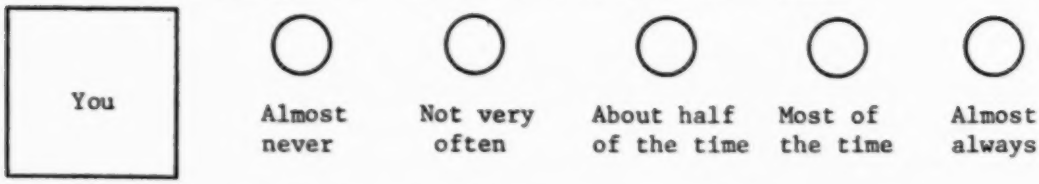
2. How often would you feel free to say what you really think?

	Almost never	Not very often	About half of the time	Most of the time	Almost always
You	○	○	○	○	○

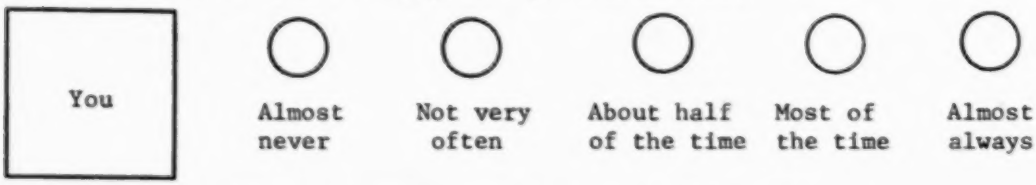
3. How often would you try to make things turn out the way you want?

	Almost never	Not very often	About half of the time	Most of the time	Almost always
You	○	○	○	○	○

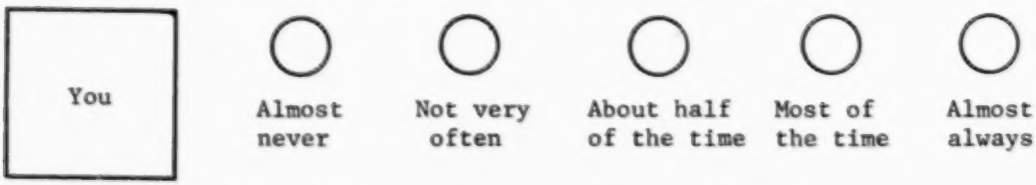
4. How often would you be a leader when friends are around?



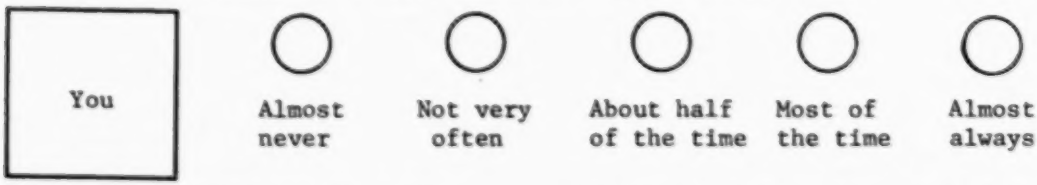
5. How often would you be happy with your skin color?



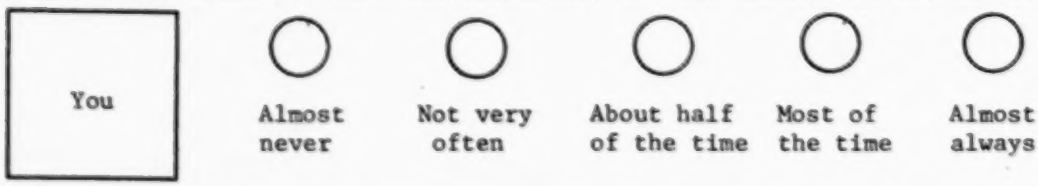
6. How often would you be sure you could do things right?



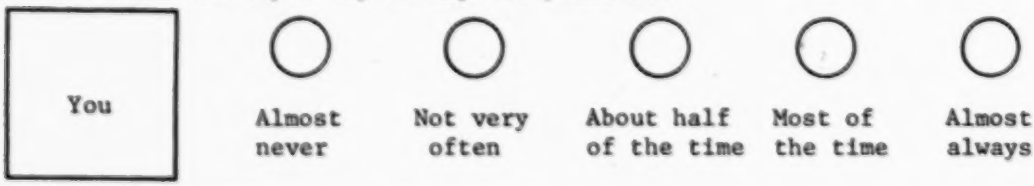
7. How often would you be happy with the way you look?



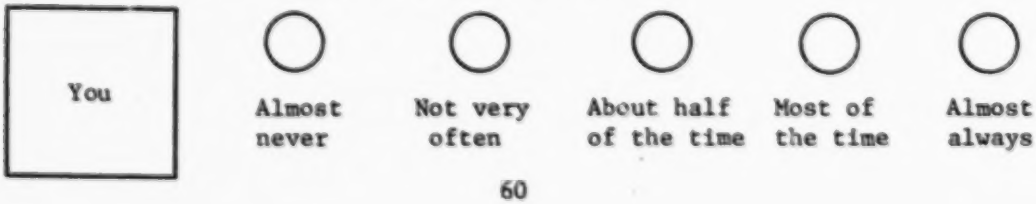
8. How often would you take responsibility for the things you say and do?



9. How often would you try to improve yourself?



10. How often would you like to learn new things?



11. How often would you expect to get a good job when you grow up?

Almost never | Not very often | About half of the time | Most of the time | Almost always

12. How often would you choose words instead of fist fights to get your way?

Almost never | Not very often | About half of the time | Most of the time | Almost always

13. How often would you feel you are smart enough to solve hard problems?

Almost never | Not very often | About half of the time | Most of the time | Almost always

14. How often would you depend on your own effort to get things done?

Almost never | Not very often | About half of the time | Most of the time | Almost always

15. How often would you make good choices?

Almost never | Not very often | About half of the time | Most of the time | Almost always

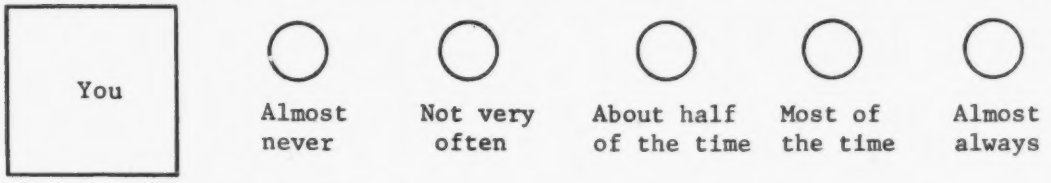
16. How often would you write and say things as clearly as your classmates?

Almost never | Not very often | About half of the time | Most of the time | Almost always

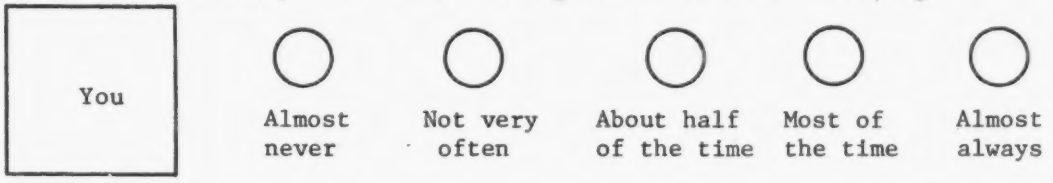
17. How often would you think things over instead of doing something foolish?

Almost never | Not very often | About half of the time | Most of the time | Almost always

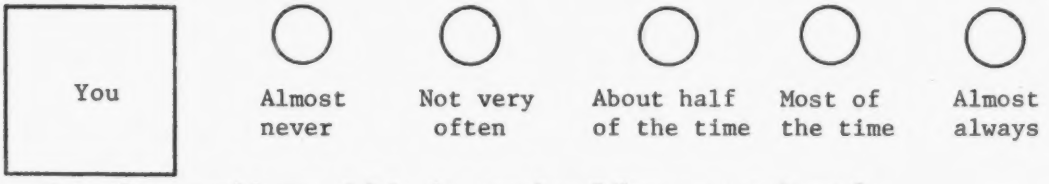
18. How often would you learn from your mistakes and try not to do them again?



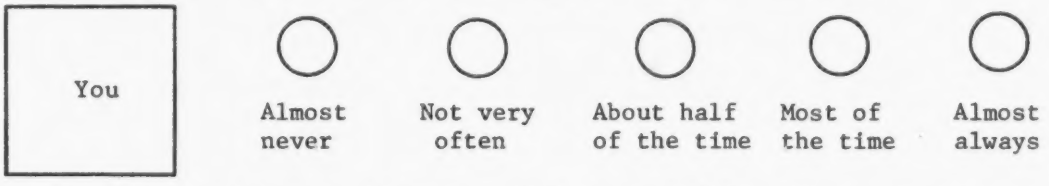
19. How often would you feel like coming to school in the morning?



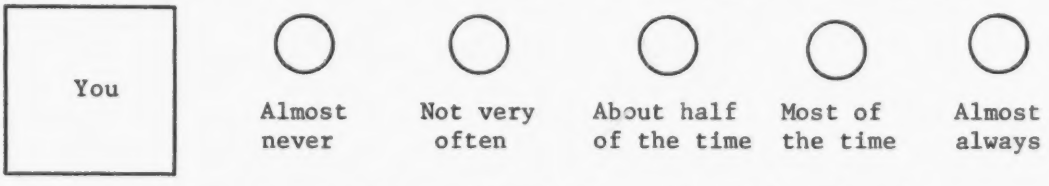
20. How often would you make up your own mind instead of listening to other kids?



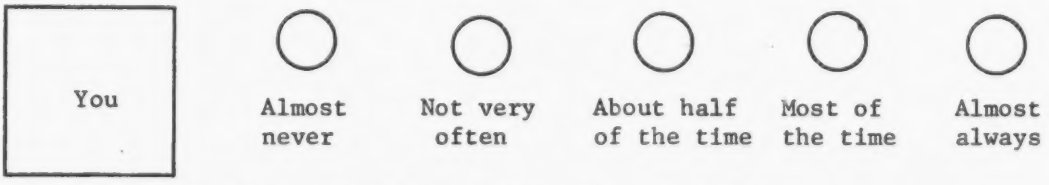
21. How often would you think the teacher likes to teach you?



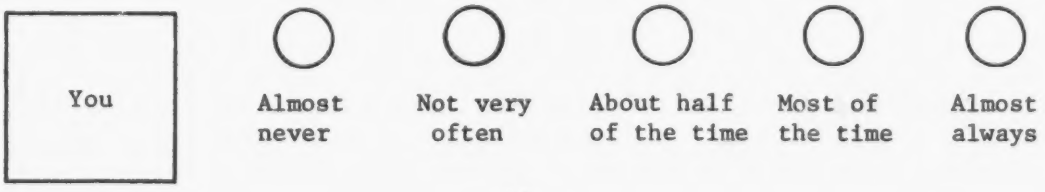
22. How often would you believe your life is valuable and important?



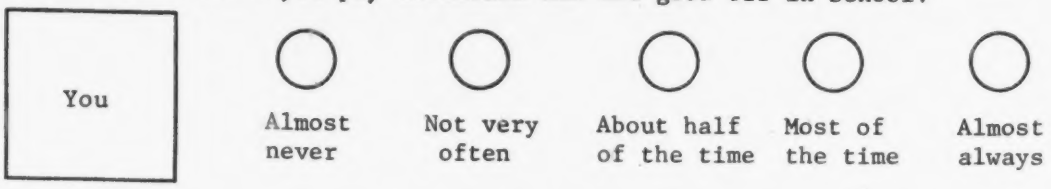
23. How often would you stick to a hard job until you finish it?



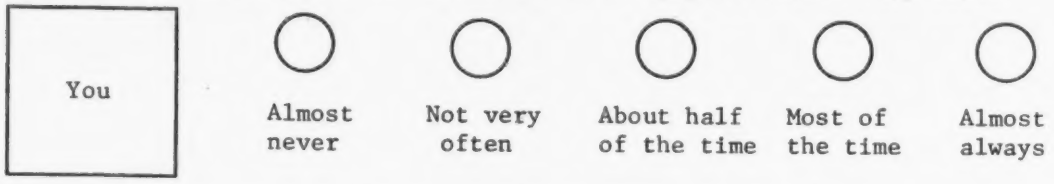
24. How often would you feel happy to be who you are?



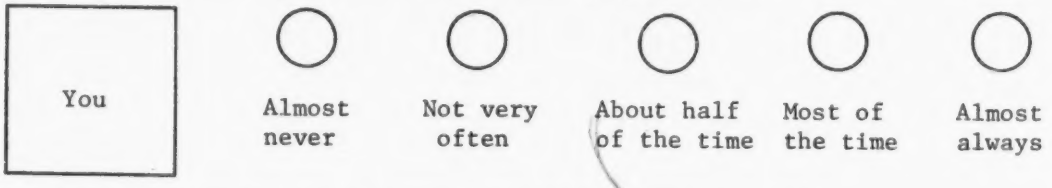
25. How often would you pay attention and not goof off in school?



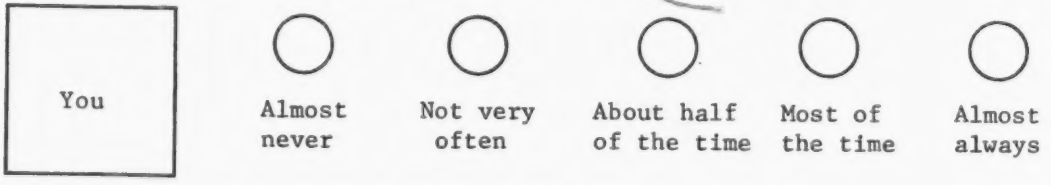
26. How often would you work hard even if the payoff wasn't very soon?



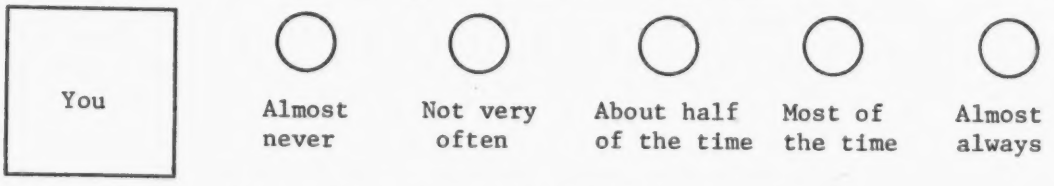
27. How often would you think that other people like you?



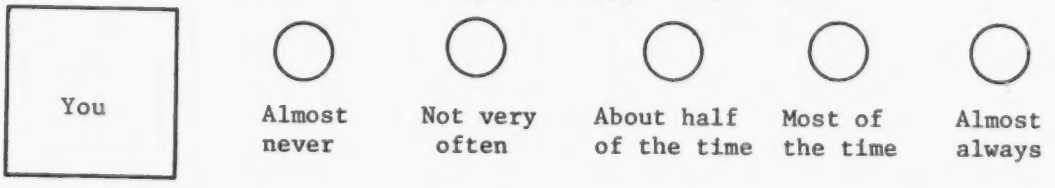
28. How often would you try your best at whatever you do?



29. How often would you make plans about your own future?



30. How often would you like to decide things for yourself?



APPENDIX A-2 (Cont.)

Self-Description Inventory *

(Matched to the Would You Instrument Item Numbers)

1. Willingness to be truthful in describing oneself.
2. Belief in own freedom of action.
3. Sense of control over own future.
4. Estimation of status with peers.
5. Sense of satisfaction with own race.
6. Confidence in own actions.
7. Sense of satisfaction with own appearance.
8. Eagerness to accept personal responsibility.
9. Inclination toward self-improvement.
10. Personal interest in learning.
11. Future aspiration/expectation.
12. Preference for non-violent expression of need.
13. Evaluation of own mental abilities.
14. Dependence on own effort.
15. Capacity for making good choices.
16. Evaluation of own language adequacy.
17. Tendency to use reason over emotion.
18. Inclination to apply self-evaluation with purpose.
19. Estimation of own interest in attending school.
20. Sense of independence from peer influence.
21. Estimation of status with teacher.
22. Belief in own personal worth.
23. Persistence of goal orientation in the face of adversity.
24. Sense of satisfaction with own identity.
25. Perception of own classroom behavior.
26. Willingness to defer gratification.
27. Estimation of interpersonal adequacy.
28. Motivation to excel.
29. Inclination to set own goals and plans.
30. Eagerness to make own decisions and choices.

*Aspects of self-image upon which the development of the "Would You" instrument was based.

APPENDIX B

B-1 ROTATED FACTOR MATRIX FOR "WOULD JOHN" INSTRUMENT

B-2 ROTATED FACTOR MATRIX FOR "WOULD YOU" INSTRUMENT

APPENDIX B-1

ROTATED FACTOR MATRIX FOR "WOULD JOHN" INSTRUMENT

Variable (Item)	Principal Component Factors								
	I	II	III	IV	V	VI	VII	VIII	h^2 †
1. How often would John be honest about his good points and weak points?	.09(18)*	-.01(27)	-.07(28.5)	.21(11)	.00(15.5)	.21(8.5)	.68(1)	-.07(25)	.57
2. How often would John feel free to say what he really thinks?	.08(19.5)	.10(17)	.60(1)	-.06(27)	.28(28)	.07(20)	-.02(26)	-.03(24)	.47
3. How often would John try to make things turn out the way he wants?	.05(23.5)	-.13(30)	.26(9)	.05(19.5)	.68(30)	.10(17)	.10(18.5)	-.21(30)	.61
4. How often would John be a leader when friends are around?	.03(25)	.28(7)	.02(24)	.02(21.5)	.57(29)	-.14(29)	-.01(24)	.10(17)	.44
5. How often would John be happy with his skin color?	.01(28)	.79(1)	-.07(28.5)	.07(17)	.02(17)	.03(22)	.10(18.5)	-.01(23)	.64
6. How often would John be sure he could do things right?	.05(23.5)	.16(10)	.28(8)	-.12(30)	.09(22)	.18(10.5)	.31(5)	.27(5.5)	.33
7. How often would John be happy with the way he looks?	.06(22)	.63(2.5)	-.00(25)	.01(24)	.24(25.5)	.27(6)	.08(20)	.20(10)	.57
8. How often would John take responsibility for the things he says and does?	.12(17)	.05(22)	.08(17.5)	.13(12.5)	-.08(10)	-.02(25.5)	.59(2)	.27(5.5)	.47
9. How often would John try to improve himself?	.57(2)	.14(12.5)	.04(22.5)	.02(21.5)	.16(24)	.08(18.5)	.27(7)	.21(9)	.49
10. How often would John like to learn new things?	.55(3)	.09(18.5)	-.09(30)	.07(17)	.08(21)	.18(10.5)	.12(15)	.18(12)	.40
11. How often would John expect to get a good job when he grows up?	-.04(29)	.39(5)	.39(6)	.11(15)	.07(19.5)	.24(7)	-.04(28.5)	.03(21)	.39
12. How often would John choose words instead of fist fights to get his way?	.02(26.5)	.04(23.5)	-.01(26.5)	.69(1)	.25(27)	-.04(27)	.01(22.5)	.13(15)	.57
13. How often would John feel he is smart enough to solve hard problems?	.08(19.5)	.11(15.5)	.39(6)	.02(23)	.24(25.5)	.15(13.5)	.35(4)	.12(16)	.39
14. How often would John depend on his own effort to get things done?	.38(8)	.19(9)	.21(10)	-.04(25.5)	-.12(5)	-.17(30)	.50(3)	.14(13.5)	.53
15. How often would John make good choices?	-.08(30)	-.12(29)	.53(2)	.26(8)	-.02(14)	.12(16)	.19(11.5)	.22(8)	.47

APPENDIX B-1 (Cont.)

Variable (Item)	Principal Component Factors								
	I	II	III	IV	V	VI	VII	VIII	h^2 †
16. How often would John write and say things as clearly as his classmates?	.31(10)	.01(26)	.11(15)	-.09(28)	.13(23)	.47(4)	-.02(26)	.45(3)	.56
17. How often would John think things over instead of doing something foolish?	.22(12.5)	.02(25)	.10(16)	.25(9)	-.09(8)	.08(18.5)	.19(11.5)	.59(1)	.52
18. How often would John learn from his mistakes and try not to do them again?	.39(7)	.11(15.5)	-.01(26.5)	.22(10)	-.10(6)	-.02(25.5)	.20(10)	.46(2)	.48
19. How often would John feel like coming to school in the morning?	.07(21)	.13(14)	.08(17.5)	.35(6)	-.26(1)	.48(3)	.17(13)	.19(11)	.52
20. How often would John make up his own mind instead of listening to other kids?	.22(12.5)	.07(21)	.46(4)	.38(5)	-.09(8)	-.09(28)	.04(21)	.34(4)	.55
21. How often would John think the teacher likes to teach him?	.27(11)	.30(6)	.04(22.5)	.13(12.5)	-.09(8)	.58(2)	-.02(26)	-.12(27)	.54
22. How often would John believe his life is valuable and important?	.19(14)	.50(4)	.39(6)	-.11(29)	-.18(2)	.21(8.5)	.12(15)	-.16(28)	.57
23. How often would John stick to a hard job until he finishes it?	.48(5)	.04(23.5)	.06(19.5)	.47(4)	-.06(11)	.17(12)	.28(6)	-.17(29)	.61
24. How often would John feel happy to be who he is?	.16(16)	.63(2.5)	.20(11)	.12(14)	-.00(15.5)	.15(13.5)	.01(22.5)	.06(18)	.50
25. How often would John pay attention and not goof off in school?	.17(15)	.08(20)	.06(19.5)	.48(3)	-.05(12)	.33(5)	.11(17)	.24(7)	.45
26. How often would John work hard even if the payoff wasn't very soon?	.36(9)	.14(12.5)	.17(13)	.53(2)	-.17(3)	-.01(24)	.22(9)	-.00(22)	.54
27. How often would John think that other people like him?	.02(26.5)	.20(8)	.18(12)	-.04(25.5)	.06(18)	.63(1)	.12(15)	.05(19)	.50
28. How often would John try his best at whatever he does?	.53(4)	.09(18.5)	.05(21)	.29(7)	-.15(4)	.14(15)	.26(8)	.04(20)	.49
29. How often would John make plans about his own future?	.47(6)	.15(11)	.48(3)	.05(19.5)	-.03(13)	.02(23)	-.04(28.5)	-.08(26)	.49
30. How often would John like to decide things for himself?	.66(1)	-.05(28)	.14(14)	.07(17)	.07(19.5)	.04(21)	-.07(30)	.14(13.5)	.49
Percent of variance accounted for	8.8%	7.6%	6.4%	6.4%	4.4%	5.9%	5.9%	5.0%	50.5%

*Figures in parentheses are the ordinal ranks for the variables based on the obtained loading of each component/factor.

†Communality

APPENDIX B-2

ROTATED FACTOR MATRIX FOR "WOULD YOU" INSTRUMENT

Variable (Item)	Principal Component Factors								h^2†
	I	II	III	IV	V	VI	VII	VIII	
1. How often would you be honest about your good points and weak points?	.58(2)	.17(12)	-.15(28.5)	.20(11)	.11(16)	.24(7)	-.12(30)	.07(19.5)	.52
2. How often would you feel free to say what you really think?	.46 (4.5)	.54(2)	.15(8.5)	.17(13)	.13(14)	-.06(29)	.07(22.5)	-.19(30)	.61
3. How often would you try to make things turn out the way you want?	.01(27.5)	.21(9)	.69(1)	.05(24)	-.09(30)	.14(16)	-.02(27)	.12(16)	.57
4. How often would you be a leader when friends are around?	-.03(30)	.66(1)	.14(10.5)	.09(18)	.04(24)	.20(13.5)	-.09(29)	.06(22)	.52
5. How often would you be happy with your skin color?	.17(13)	-.11(26.5)	.14(10.5)	.75(1)	.00(27.5)	-.00(28)	.03(24)	.00(27.5)	.64
6. How often would you be sure you could do things right?	.14(15.5)	.30(5)	.26(5)	.07(22.5)	.13(14)	.36(5)	.23(13.5)	.13(15)	.39
7. How often would you be happy with the way you look?	.01(27.5)	.26(6.5)	-.01(20.5)	.56(3)	.17(8)	.38(6)	.08(21)	-.03(29)	.58
8. How often would you take responsibility for the things you say and do?	.51(3)	.08(18)	.10(14)	-.02(29)	.10(17)	.18(15)	.24(12)	.18(10)	.41
9. How often would you try to improve yourself?	.34(9)	.06(19)	.15(8.5)	.29(6)	.01(26)	.01(27)	.37(4)	.33(4)	.48
10. How often would you like to learn new things?	.32(10)	.04(20)	.19(7)	.40(4)	.24(5)	-.15(30)	.16(18)	.31(5)	.50
11. How often would you expect to get a good job when you grow up?	.10(20)	.15(14)	.27(4)	.28(7)	.23(6)	.06(21.5)	.31(8.5)	.27(7)	.40
12. How often would you choose words instead of fist fights to get your way?	.06(23.5)	-.15(29)	.41(2)	-.00(28)	.58(3)	.04(24)	.16(18)	.00(27.5)	.56
13. How often would you feel you are smart enough to solve hard problems?	.14(15.5)	.20(10.5)	.08(15)	.08(20.5)	.00(27.5)	.65(1)	.01(25)	.07(19.5)	.50
14. How often would you depend on your own effort to get things done?	.35(7.5)	.24(8)	-.14(27)	-.05(30)	.05(22)	.13(17)	.16(18)	.47(3)	.47
15. How often would you make good choices?	.06(23.5)	.03(21)	.03(18)	.04(25)	.07(19.5)	.52(2)	.32(7)	.16(13.5)	.41

APPENDIX B-2 (Cont.)

Variable (Item)	Principal Component Factors								h^2 †
	I	II	III	IV	V	VI	VII	VIII	
16. How often would you write and say things as clearly as your classmates?	.15(14)	.20(10.5)	.21(6)	.07(22.5)	.05(22)	.42(4)	.31(8.5)	.06(22)	.39
17. How often would you think things over instead of doing something foolish?	.46(4.5)	-.06(24)	-.10(26)	.02(26)	.13(14)	.23(8.5)	.35(5)	.09(18)	.42
18. How often would you learn from your mistakes and try not to do them again?	.64(1)	-.09(25)	.12(12)	.08(20.5)	.16(10.5)	.06(21.5)	.22(15)	.06(22)	.52
19. How often would you feel like coming to school in the morning?	.18(12)	.12(16)	-.08(25)	.00(27)	.71(1)	.10(18.5)	.00(26)	.03(25.5)	.57
20. How often would you make up your own mind instead of listening to other kids?	.35(7.5)	-.11(26.5)	-.02(22)	.23(10)	.16(10.5)	.50(3)	-.03(28)	.23(8)	.52
21. How often would you think the teacher likes to teach you?	.09(21)	.26(6.5)	-.15(28.5)	.26(8)	.61(2)	.02(26)	.23(13.5)	.05(24)	.59
22. How often would you believe your life is valuable and important?	.06(23.5)	.36(4)	-.24(30)	.38(5)	.03(25)	.21(11.5)	.27(10)	.28(6)	.54
23. How often would you stick to a hard job until you finish it?	.13(17.5)	.16(13)	.06(16.5)	.09(18)	.05(22)	.03(25)	.74(1)	.11(17)	.62
24. How often would you feel happy to be who you are?	.02(26)	.12(16)	-.01(20.5)	.63(2)	.07(19.5)	.21(11.5)	.25(11)	.18(10)	.55
25. How often would you pay attention and not goof off in school?	.24(11)	-.12(28)	-.06(23.5)	.15(15.5)	.39(4)	.23(8.5)	.33(6)	.16(13.5)	.43
26. How often would you work hard even if the payoff wasn't very soon?	.12(19)	-.02(23)	-.06(23.5)	.17(13)	.16(10.5)	.22(10)	.66(2)	.03(25.5)	.56
27. How often would you think that other people like you?	-.02(29)	.53(3)	-.00(19)	.15(15.5)	.16(10.5)	.08(20)	.20(16)	.17(12)	.41
28. How often would you try your best at whatever you do?	.36(6)	.00(22)	.11(13)	.24(9)	.18(7)	.05(23)	.44(3)	.18(10)	.46
29. How often would you make plans about your own future?	.06(23.5)	.12(16)	.06(16.5)	.09(18)	.09(18)	.10(18.5)	.11(20)	.76(1)	.64
30. How often would you like to decide things for yourself?	.13(17.5)	-.21(30)	.33(3)	.17(13)	-.07(29)	.20(13.5)	.07(22.5)	.53(2)	.53
Percent of variance accounted for	7.6%	6.0%	4.2%	7.1%	5.9%	6.4%	7.9%	5.9%	51.0%

*Figure in parentheses is the ordinal rank for that variable based on the obtained loading on each component/factor.
†Communality

APPENDIX C

DESCRIPTION OF SAMPLE POPULATION

APPENDIX C

DESCRIPTION OF SAMPLE POPULATION

Language Grade of Indian Groups

	Experimental	Control	
Mean	2.54	2.40	
Std Dev	0.77	0.84	
Variance	0.60	0.70	t = 1.09
N	(59)	(45)	

	Experimental	Control	Row Total
Rapid Progress	* 5 45.5 8.5 4.8	6 54.5 13.3 5.8	11 10.6
Satisf Progess	22 53.7 37.3 21.2	19 46.3 42.2 18.3	41 39.4
Accep Progress	27 62.8 45.8 26.0	16 37.2 35.6 15.4	43 41.3
Little or No Progress	5 55.6 8.5 4.8	4 44.4 8.9 3.8	9 8.7
Column Total	59 56.7	45 43.3	104 100.0

Chi Square = 1.38 with 3 degrees of freedom

* Count
Row Pct
Col Pct
Tot Pct

Math Grade of Indian Groups

	Experimental	Control	
Mean	2.90	2.31	
Std Dev	0.74	0.95	
Variance	0.54	0.90	t = 3.87
N	(59)	(45)	

	Experimental	Control	Row Total
Rapid Progress	* 2 16.7 3.4 1.9	10 83.3 22.2 9.6	12 11.5
Satisf Progress	13 44.8 22.0 12.5	16 55.2 35.6 15.4	29 27.9
Accep Progress	33 70.2 55.9 31.7	14 29.8 31.1 13.5	47 45.2
Little or No Progress	11 68.8 18.6 10.6	5 31.3 11.1 4.8	16 15.4
Column Total	59 56.7	45 43.3	104 100.0

Chi Square = 13.94 with 3 degrees of freedom

* Count
Row Pct
Col Pct
Tot Pct

Age of Indian Groups

	Experimental	Control	
Mean	12.39	12.18	
Std Dev	0.77	0.72	
Variance	0.59	0.51	t = 1.96
N	(59)	(45)	

Age	Experimental	Control	Row Total
11	* 7 50.8 11.9 6.7	7 50.0 15.6 6.7	14 13.5
12	25 51.0 42.4 24.0	24 49.0 53.3 23.1	49 47.1
13	24 64.9 40.7 23.1	13 35.1 28.9 12.5	37 35.6
14	3 75.0 5.1 2.9	1 25.0 2.2 1.0	4 3.8
Column Total	59 56.7	45 43.3	104 100.0

Chi Square = 2.45 with 3 degrees of freedom

* Count
Row Pct
Col Pct
Tot Pct

Sex of Indian Groups

	Experimental	Control	Row Total
Male	* 34 60.7 57.6 32.7	22 39.3 48.9 21.2	56 53.8
Female	25 52.1 42.4 24.0	23 47.9 51.1 22.1	48 46.2
Column Total	59 56.7	45 43.3	104 100.0

Chi Square = 0.47 with 1 degree of freedom

* Count
Row Pct
Col Pct
Tot Pct

APPENDIX D

D-1 PERCENTAGE RESPONSES BY ETHNIC GROUPS

D-2 DEGREES OF FREEDOM, CHI SQUARE, AND SIGNIFICANCE LEVELS FOR CROSS TABULATIONS ON "WOULD JOHN" AND "WOULD YOU" ITEMS

APPENDIX D-1

PERCENTAGE RESPONSES BY ETHNIC GROUPS

Item No.	Response	"Would John" White	Black	Mexican-American	Indian	"Would You" White	Black	Mexican-American	Indian
1.	A	1.0	3.5	2.3	1.0	1.9	3.5	3.1	1.9
	B	17.4	16.7	20.2	26.0	7.7	7.9	14.0	12.5
	C	27.5	34.2	29.5	29.8	44.4	40.5	44.2	41.3
	D	39.1	33.8	33.3	30.8	30.4	29.5	31.0	38.5
	E	15.0	11.8	14.7	12.5	15.5	18.5	7.8	5.8
		n = 207	n = 228	n = 129	n = 104	n = 207	n = 227	n = 129	n = 104
2.	A	8.2	10.6	3.9	5.8	5.3	4.4	7.0	3.8
	B	28.5	25.6	35.7	23.1	24.2	14.7	20.9	20.2
	C	36.7	20.7	26.4	29.8	27.1	28.0	31.8	26.9
	D	20.8	22.5	23.3	31.7	25.6	31.6	28.7	33.7
	E	5.8	20.7	10.9	9.6	17.9	21.3	11.6	15.4
		n = 207	n = 227	n = 129	n = 104	n = 207	n = 225	n = 129	n = 104
3.	A	8.2	13.2	7.0	6.7	1.0	8.4	2.3	3.8
	B	25.1	20.7	31.8	25.0	9.7	15.5	20.2	14.4
	C	30.4	23.3	31.8	34.6	35.3	28.8	28.7	33.7
	D	20.3	19.8	19.4	21.2	31.4	26.5	25.6	33.7
	E	15.9	22.9	10.1	12.5	22.7	20.8	23.3	14.4
		n = 207	n = 227	n = 129	n = 104	n = 207	n = 226	n = 129	n = 104
4.	A	13.0	15.9	12.4	13.6	9.7	15.4	11.6	5.8
	B	34.3	28.3	31.0	40.8	30.4	21.6	26.4	26.0
	C	33.3	27.9	34.1	28.2	39.1	31.7	34.9	45.2
	D	15.9	14.2	17.8	10.7	15.0	18.1	20.9	16.3
	E	3.4	13.7	4.7	6.8	5.8	13.2	6.2	6.7
		n = 207	n = 226	n = 129	n = 103	n = 207	n = 227	n = 129	n = 104
5.	A	7.2	6.2	7.0	7.8	1.0	3.1	1.6	5.8
	B	18.8	13.2	7.8	30.1	2.4	3.1	0.8	2.9
	C	24.2	13.2	25.6	16.5	5.3	9.7	4.7	12.5
	D	21.3	22.9	19.4	28.2	15.5	14.5	15.6	21.2
	E	28.5	44.5	40.3	17.5	75.8	69.6	77.3	57.7
		n = 207	n = 227	n = 129	n = 103	n = 207	n = 227	n = 128	n = 104
6.	A	2.9	5.8	2.3	2.0	2.9	1.8	0.8	1.9
	B	18.1	17.3	21.7	20.6	11.7	6.2	15.5	12.5
	C	43.6	36.7	48.8	45.1	45.1	35.0	41.9	45.2
	D	26.0	27.4	20.9	23.5	34.0	39.8	31.0	33.7
	E	9.3	12.8	6.2	8.8	6.3	17.3	10.9	6.7
		n = 204	n = 226	n = 129	n = 102	n = 206	n = 226	n = 129	n = 104

APPENDIX D-1 (Cont.)

Item No.	Response	"Would John"				"Would You"			
		White	Black	Mexican-American	Indian	White	Black	Mexican-American	Indian
7.	A	5.4	5.3	4.7	2.9	5.3	5.8	3.1	2.9
	B	21.5	13.3	20.9	30.1	11.6	6.6	14.7	20.2
	C	36.6	17.3	24.8	35.9	30.9	17.7	20.2	33.7
	D	20.5	23.0	27.9	21.4	27.1	19.9	33.3	23.1
	E	16.1	41.2	21.7	9.7	25.1	50.0	28.7	20.2
		n = 205	n = 226	n = 129	n = 103	n = 207	n = 226	n = 129	n = 104
8.	A	7.2	9.3	3.9	2.9	2.4	3.5	3.1	1.9
	B	9.2	19.0	16.3	17.5	3.9	7.5	6.3	20.2
	C	29.0	34.1	37.2	32.0	30.1	32.6	35.9	25.0
	D	33.3	20.4	20.9	38.8	37.4	35.2	39.1	42.3
	E	21.3	17.3	21.7	8.7	26.2	21.1	15.6	10.6
		n = 207	n = 226	n = 129	n = 103	n = 206	n = 227	n = 128	n = 104
9.	A	4.8	6.6	3.1	1.0	0.5	2.2	0.8	1.0
	B	10.1	11.5	15.5	11.7	6.3	5.3	7.8	8.7
	C	22.7	16.7	21.7	35.9	21.3	15.0	21.1	24.0
	D	34.3	29.1	37.2	34.0	25.1	23.3	28.9	38.5
	E	28.0	36.1	22.5	17.5	46.9	54.2	41.4	27.9
		n = 207	n = 227	n = 129	n = 103	n = 207	n = 227	n = 128	n = 104
10.	A	2.9	3.5	2.3	0.0	1.9	0.9	0.0	1.9
	B	6.8	6.6	8.5	5.8	1.0	3.1	1.6	2.9
	C	15.5	15.0	14.0	17.5	12.6	10.1	11.8	13.5
	D	23.2	24.7	28.7	44.7	21.7	18.9	28.3	35.6
	E	51.7	50.2	46.5	32.0	62.8	67.0	58.3	46.2
		n = 207	n = 227	n = 129	n = 103	n = 207	n = 227	n = 127	n = 104
11.	A	8.3	6.2	3.9	7.9	0.5	3.5	1.6	0.0
	B	28.6	14.6	20.9	22.8	4.8	4.8	4.7	7.7
	C	29.6	23.5	23.3	35.6	19.8	15.9	17.1	39.4
	D	15.5	24.8	26.4	18.8	40.1	32.6	40.3	39.4
	E	18.0	31.0	25.6	14.9	34.8	43.2	36.4	13.5
		n = 206	n = 226	n = 129	n = 101	n = 207	n = 227	n = 129	n = 104
12.	A	9.3	19.5	7.0	8.9	7.2	11.0	10.9	14.6
	B	20.0	19.0	14.1	20.8	13.5	13.7	11.6	22.3
	C	22.4	25.2	28.1	29.7	23.2	32.6	31.0	27.2
	D	20.0	20.4	25.8	23.8	26.1	22.5	25.6	25.2
	E	28.3	15.9	25.0	16.8	30.0	20.3	20.9	10.7
		n = 205	n = 226	n = 128	n = 101	n = 207	n = 227	n = 129	n = 103
13.	A	5.3	7.1	9.3	3.0	3.4	6.2	4.7	3.8
	B	26.7	20.4	23.3	22.8	12.1	15.9	20.2	19.2
	C	38.8	35.0	39.5	43.6	39.6	33.5	40.3	46.2
	D	20.4	22.1	20.9	25.7	32.9	27.8	31.8	26.0
	E	8.7	15.5	7.0	5.0	12.1	16.7	3.1	4.8
		n = 206	n = 226	n = 129	n = 101	n = 207	n = 227	n = 129	n = 104

APPENDIX D-1 (Cont.)

Item No.	Response	"Would John"				"Would You"			
		White	Black	Mexican-American	Indian	White	Black	Mexican-American	Indian
14.	A	3.9	5.3	0.8	3.0	1.4	3.1	1.6	1.9
	B	12.6	19.9	13.2	18.8	6.3	13.2	8.5	12.5
	C	27.2	31.4	41.1	37.6	28.0	26.9	35.7	36.5
	D	35.0	26.5	33.3	29.7	41.5	37.9	33.3	28.8
	E	21.4	16.8	11.6	10.9	22.7	18.9	20.9	20.2
		n = 206	n = 226	n = 129	n = 101	n = 207	n = 227	n = 129	n = 104
15.	A	3.9	4.9	3.1	2.0	2.4	2.7	1.6	2.9
	B	11.7	15.0	19.4	17.8	11.1	11.6	13.2	18.3
	C	38.8	39.8	34.1	41.6	43.5	38.2	39.5	39.4
	D	28.6	25.2	30.2	27.7	30.4	30.2	30.2	32.7
	E	17.0	15.0	13.2	10.9	12.6	17.3	15.5	6.7
		n = 206	n = 226	n = 129	n = 101	n = 207	n = 225	n = 129	n = 104
16.	A	6.8	8.8	4.7	10.9	3.9	4.9	4.7	2.9
	B	15.5	13.3	19.4	26.7	11.1	11.9	19.4	15.4
	C	34.5	29.6	28.7	37.6	36.7	23.5	24.8	42.3
	D	27.2	27.9	33.3	17.8	29.5	34.5	38.0	26.0
	E	16.0	20.4	14.0	6.9	18.8	25.2	13.2	13.5
		n = 206	n = 226	n = 129	n = 101	n = 207	n = 226	n = 129	n = 104
17.	A	7.3	12.8	10.9	10.9	3.4	7.9	5.5	3.8
	B	13.1	15.5	13.2	16.8	13.0	11.0	15.6	11.5
	C	24.8	23.9	28.7	31.7	27.1	29.5	28.1	40.4
	D	32.0	27.4	25.6	24.8	38.6	26.0	28.9	32.7
	E	22.8	20.4	21.7	15.8	17.9	25.6	21.9	11.5
		n = 206	n = 226	n = 129	n = 101	n = 207	n = 227	n = 128	n = 104
18.	A	1.9	11.8	7.8	6.8	0.5	3.1	4.7	2.9
	B	6.8	11.4	14.0	14.6	3.9	4.8	6.3	4.8
	C	26.1	18.9	25.6	35.0	16.5	19.8	18.8	27.9
	D	34.8	31.6	30.2	29.1	42.2	30.4	35.2	45.2
	E	30.4	26.3	22.5	14.6	36.9	41.9	35.2	19.2
		n = 207	n = 228	n = 129	n = 103	n = 206	n = 227	n = 128	n = 104
19.	A	13.0	8.8	8.5	4.9	18.0	6.2	13.3	10.7
	B	19.8	17.5	15.5	23.3	18.4	14.1	16.4	22.3
	C	23.7	22.4	25.6	30.1	25.2	22.0	17.2	23.3
	D	24.6	23.2	23.3	21.4	19.4	25.6	25.0	22.3
	E	18.8	28.1	27.1	20.4	18.9	32.2	28.1	21.4
		n = 207	n = 228	n = 129	n = 103	n = 206	n =227	n = 128	n = 103
20.	A	3.4	9.7	5.4	1.9	2.4	3.5	1.6	4.8
	B	14.5	12.4	10.1	17.5	7.3	7.0	14.1	5.8
	C	28.5	28.3	31.8	33.0	25.2	18.9	28.1	37.5
	D	30.0	22.1	34.9	32.0	38.3	35.2	31.3	35.6
	E	23.7	27.4	17.8	15.5	26.7	35.2	25.0	16.3
		n = 207	n = 226	n = 129	n = 103	n = 206	n = 227	n = 128	n = 104

APPENDIX D-1 (Cont.)

Item No.	Response	"Would John"				"Would You"			
		White	Black	Mexican-American	Indian	White	Black	Mexican-American	Indian
21.	A	7.8	4.8	4.7	2.9	6.8	3.5	6.3	4.8
	B	19.9	12.3	14.7	18.4	10.1	5.7	7.0	13.5
	C	27.7	29.1	29.5	36.9	29.5	23.3	22.7	33.7
	D	26.2	21.1	27.1	28.2	27.1	27.8	22.7	31.7
	E	18.4	32.6	24.0	13.6	26.6	39.6	41.4	16.3
		n = 206	n = 227	n = 129	n = 103	n = 207	n = 227	n = 128	n = 104
22.	A	9.2	8.8	5.4	7.8	7.2	2.2	3.1	4.8
	B	24.6	14.1	16.3	20.4	12.1	8.4	12.5	17.3
	C	29.5	18.9	29.5	28.2	25.6	23.1	23.4	36.5
	D	20.8	18.1	31.8	22.3	26.1	19.6	35.2	27.9
	E	15.9	40.1	17.1	21.4	29.0	46.7	25.8	13.5
		n = 207	n = 227	n = 129	n = 103	n = 207	n = 225	n = 128	n = 104
23.	A	3.4	4.4	7.8	2.9	1.9	2.2	0.8	1.9
	B	9.2	16.3	10.9	12.7	6.3	10.2	9.4	10.6
	C	23.2	26.4	25.6	19.6	22.2	21.7	20.3	27.9
	D	29.5	25.6	31.0	43.1	31.9	26.1	30.5	29.8
	E	34.8	27.3	24.8	21.6	37.7	39.8	39.1	29.8
		n = 207	n = 227	n = 129	n = 102	n = 207	n = 226	n = 128	n = 104
24.	A	5.8	4.8	3.9	6.8	1.9	1.8	3.9	3.8
	B	17.4	12.3	10.1	19.4	4.3	7.1	4.7	10.6
	C	27.1	19.8	20.2	29.1	17.9	13.7	14.8	25.0
	D	23.2	18.9	24.0	19.4	26.6	20.4	28.1	32.7
	E	26.6	44.1	41.9	25.2	49.3	57.1	48.4	27.9
		n = 207	n = 227	n = 129	n = 103	n = 207	n = 226	n = 128	n = 104
25.	A	8.8	5.8	8.5	8.8	4.9	6.7	3.9	9.8
	B	14.1	9.0	16.3	17.6	9.3	7.1	11.6	16.7
	C	23.4	28.7	22.5	25.5	27.5	21.9	30.2	33.3
	D	26.3	24.2	22.5	23.5	38.7	29.5	30.2	24.5
	E	27.3	32.3	30.2	24.5	19.6	34.8	24.0	15.7
		n = 205	n = 223	n = 129	n = 102	n = 204	n = 224	n = 129	n = 102
26.	A	3.9	4.5	5.4	5.9	2.5	3.1	0.0	3.9
	B	11.2	17.1	10.9	11.8	6.4	7.1	9.3	11.8
	C	24.4	25.7	30.2	32.4	25.0	28.6	27.1	45.1
	D	38.5	9.7	32.6	31.4	43.1	31.7	38.0	24.5
	E	22.0	23.0	20.9	18.6	23.0	29.5	25.6	14.7
		n = 205	n = 222	n = 129	n = 102	n = 204	n = 224	n = 129	n = 102
27.	A	8.8	6.3	7.0	4.9	5.9	4.5	1.6	1.0
	B	18.5	15.7	24.0	34.3	9.3	8.5	15.7	17.6
	C	39.0	30.9	28.7	35.3	40.2	30.0	36.2	46.1
	D	26.8	27.8	22.5	23.5	34.8	37.7	33.1	26.5
	E	6.8	19.3	17.8	2.0	9.8	19.3	13.4	8.8
		n = 205	n = 223	n = 129	n = 102	n = 204	n = 223	n = 127	n = 102

APPENDIX D-1 (Cont.)

Item No.	Response	"Would John"				"Would You"			
		White	Black	Mexican-American	Indian	White	Black	Mexican-American	Indian
28.	A	2.4	6.7	3.9	2.0	0.0	3.1	2.3	1.0
	B	8.3	11.6	13.2	7.8	5.4	4.9	5.4	11.8
	C	21.5	21.9	21.7	27.5	15.7	14.7	25.6	27.5
	D	33.7	26.3	34.1	35.3	37.3	29.9	39.5	42.2
	E	34.1	33.5	27.1	27.5	41.7	47.3	27.1	17.6
		n = 205	n = 224	n = 129	n = 102	n = 204	n = 224	n = 129	n = 102
29.	A	8.8	8.5	7.0	2.9	3.4	4.9	4.7	2.9
	B	17.6	17.0	17.1	15.7	8.3	8.0	10.9	11.8
	C	32.2	28.7	30.2	31.4	23.5	21.9	21.7	29.4
	D	24.9	26.5	24.0	34.3	32.4	31.7	38.0	45.1
	E	16.6	19.3	21.7	15.7	32.4	33.5	24.8	10.8
		n = 205	n = 223	n = 129	n = 102	n = 204	n = 224	n = 129	n = 102
30.	A	2.0	6.7	2.3	2.0	1.0	2.2	3.1	0.0
	B	7.3	9.8	12.4	8.9	2.5	7.6	4.7	6.9
	C	19.0	23.2	18.6	16.8	14.2	13.8	19.4	34.3
	D	23.9	20.5	27.1	41.6	28.4	28.1	27.9	29.4
	E	47.8	39.7	39.5	30.7	53.9	48.2	45.0	29.4
		n = 205	n = 224	n = 129	n = 101	n = 204	n = 224	n = 129	n = 102

APPENDIX D-2

DEGREES OF FREEDOM, CHI SQUARE, AND SIGNIFICANCE LEVELS FOR CROSS TABULATIONS ON "WOULD JOHN" AND "WOULD YOU" ITEMS

	"Would John"			"Would You"		
Item No.	df	χ^2	Sig.	df	χ^2	Sig.
1.	12	12.23049		12	21.15930	*
2.	12	44.06610	**	12	14.00490	
3.	12	23.52104	*	12	29.02716	**
4.	12	25.98088	*	12	24.57150	*
5.	12	50.61275	**	12	22.27057	*
6.	12	14.25218		12	28.91753	**
7.	12	72.13278	**	12	61.94699	**
8.	12	36.37146	**	12	38.11961	**
9.	12	31.99580	**	12	26.52998	**
10.	12	23.94618	*	12	21.67876	*
11.	12	35.50090	**	12	51.01453	**
12.	12	29.50945	**	12	25.89986	*
13.	12	19.14658		12	29.18605	**
14.	12	24.60472	*	12	15.86328	
15.	12	9.19328		12	10.98856	
16.	12	27.15735	**	12	29.86403	**
17.	12	9.83141		12	24.33220	*
18.	12	36.51535	**	12	30.38681	**
19.	12	14.68054		12	28.86900	**
20.	12	26.14281	*	12	30.15022	**
21.	12	26.61322	**	12	31.86278	**
22.	12	52.97731	**	12	53.57678	**
23.	12	23.02391	*	12	8.41798	
24.	12	26.36926	**	12	30.68221	**
25.	12	11.18948		12	34.70541	**
26.	12	10.16298		12	31.98143	**
27.	12	44.48242	**	12	31.84335	**
28.	12	15.30362		12	48.19533	**
29.	12	8.71572		12	24.01823	*
30.	12	30.33302	**	12	38.04631	**

*significance at .05
**significance at .01

APPENDIX E

THE ANALYSIS MODEL

APPENDIX E

THE ANALYSIS MODEL

The full model (FM) which was adopted is shown below:

$$Y_i = b_0 X_{0_i} + b_1 X_{1_i} + b_2 R_{E_i} + b_3 R_{C_i} + b_4 R^2_{E_i} + b_5 R^2_{C_i} + e_i, \qquad (1)$$

where,

Y_i = a dependent variable score for student i (i.e., a factor score),

X_{0_i} = a constant added by the regression program (equal to 1 [one] for each student),

X_{1_i} = a treatment/film variable which equals 1 (one) if student i belongs to an experimental (film) group and which equals 0 (zero) if student i was a control group (no film) subject,

R_{E_i} = "self-image level" for student i if he were an experimental group student, 0 (zero) if he were a control group student,

R_{C_i} = "self-image level" for student i if he were a control group student, 0 (zero) if he were an experimental group student,

$R^2_{E_i}$ = the square of the student i's R_E score,

$R^2_{C_i}$ = the square of the student i's R_C score,

$b_0 - b_5$ = constants solved by a multiple regression program when X_1, R_E, R_C, R^2_E and R^2_C are regressed on Y,

e_i = an error component.

(Note: The subscript i has been deleted from all the models/equations to be described later. The reader should remember that the values of the X and R variables actually pertain to individual students even though the subscript has been dropped.)

Now, for each control group student this model becomes,

$$Y = b_0X_0 + b_10 + b_20 + b_3R_C + b_40 + b_5R_C^2 + e,$$

or,

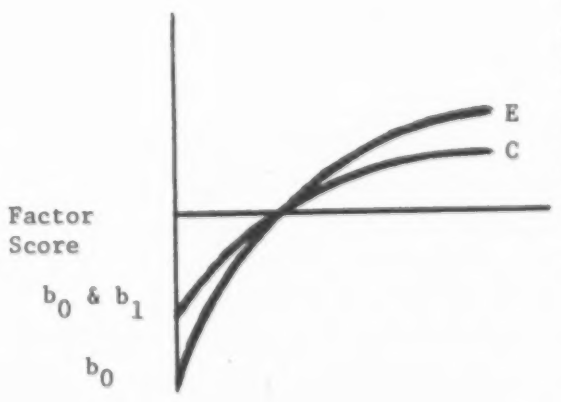
$$Y = b_0X_0 + b_3R_C + b_5R_C^2 + e, \qquad (2)$$

because, for these students, X_1, R_E and R_E^2 are all equal to zero. By the same logic, the full model for experimental group students will become,

$$Y = b_0X_0 + b_1X_1 + b_2R_E + b_4R_E^2 + e. \qquad (3)$$

In effect, then, the single full model (equation 1) incorporates two models at the same time, the relation of R_C and R_C^2 to Y (equation 2) and the relationship of R_E and R_E^2 to Y (equation 3). Figure 1 shows what two these two relationships might look like for such a full model.

FIGURE 1



b_0 = control group intercept
b_0 & b_1 = experimental group intercept
b_2 = slope of experimental group curve
b_3 = slope of control group curve
b_4 = bend in experimental group curve
b_5 = bend in control group curve

Restricted Models. Restrictions are placed on a full model in accordance with the effects one is interested in testing. For example, one might ask whether at least one of the weights for the quadratic component is significantly different from zero. The null hypothesis, then, would be that,

$$b_4 = b_5 = 0,$$

in the full model, equation 1. Substituting this restriction into the full model equation yields,

$$Y = b_0X_0 + b_1X_1 + b_2R_E + b_3R_C + 0R_E^2 + 0R_0^2 + e,$$

which becomes,

$$Y = b_0X_0 + b_1X_1 + b_2R_E + b_3R_C + e. \qquad (4)$$

One then regresses X_1, R_E and R_C on Y and tests for a significant difference between the multiple R^2 for the full model (equation 1) and the multiple R^2 for this restricted model. The appropriate statistic for this test is the partial F test,

$$F = \frac{R^2_{FM} - R^2_{RM} / (NP_{FM}) - (NP_{RM})}{1 - R^2_{FM} / N - (NP_{FM})} \qquad (5)$$

where,

R^2_{FM} = R^2, full model,

R^2_{RM} = R^2, restricted model,

NP_{FM} = number of parameters in the full model,

NP_{RM} = number of parameters in the restricted model,

N = the total number of subjects.

$(NP_{FM} - NP_{RM})$ and $(N - NP_{FM})$ are the proper degrees of freedom for this F. In the present example $NP_{FM} = 6$ and $NP_{RM} = 4$. Let us assume that the F obtained in the present example was large enough that it was unlikely that $b_4 = b_5 = 0$ (i.e., either one or both of the coefficients is probably non-zero in the population).

The inference that either or both of the weights are non-zero, however, does not indicate that they are the same. Rather, we must create a new restriction to test this particular hypothesis. Let the null hypothesis be that b_4 and b_5 have the same value in the population; that is,

$$b_4 = b_5 = b,$$

where b is a common weight.

Placing this restriction on the full model shown in equation 1 yields,

$$Y = b_0X_0 + b_1X_1 + b_2R_E + b_3R_C + bR_E^2 + bR_C^2 + e.$$

But, R_E^2 and R_C^2 are multiplied by the same constant, b, so we can combine R_E^2 and R_C^2 into one variable as follows,

$$Y = b_0X_0 + b_1X_1 + b_2R_E^2 + b_3R_C + b(R_E^2 + R_C^2) + e. \qquad (6)$$

Since R_E^2 is the square of the "self-image level" for experimental students and zero for control students and since R_C^2 is the square of the "self-image level" score for control students and zero for experimental group students, the new variable $(R_E^2 + R_C^2)$ is merely a single variable with the square of each student's "self-image level" over both experimental and control groups.

One then regresses the four variables, X_1, R_E, R_C and $(R_E^2 + R_C^2)$ on Y and performs the partial F test shown in equation 5. If the F is significant, the null hypothesis that,

$$b_4 = b_5 = b,$$

would be rejected. The reader should note that the present hypothesis is meaningful only if the null hypothesis that,

$$b_4 = b_5 = 0,$$

had been rejected. That is, it does not make much sense to ask if the two quadratic weights are different if neither of them is greater than zero.

Next, the same kind of restrictions may be placed on the constants for linear effects in equation 1. To test for the presence of linear effects, the appropriate null hypothesis would be,

$$b_2 = b_3 = 0.$$

The restricted model would become,

$$Y = b_0X_0 + b_1X_1 + 0R_E + 0R_C + b_4R_E^2 + b_5R_C^2 + e$$

or,

$$Y = b_0X_0 + b_1X_1 + b_4R_E^2 + b_5R_C^2 + e. \qquad (7)$$

The constants in this model would then be estimated by regressing X_1, R_E^2 and R_C^2 on Y and comparing the multiple R^2 of this model with that of the full model by means of a partial F test.

The null hypothesis that the two linear slopes are the same could also be tested. The restriction,

$$b_2 = b_3 = b,$$

could be placed on the full model yielding,

$$Y = b_0X_0 + b_1X_1 + bR_E + bR_C + b_4R_E^2 + b_5R_C^2 + e,$$

which can be reduced to,

$$Y = b_0X_0 + b_1X_1 + b(R_E + R_C) + b_4R_E^2 + b_5R_C^2 + e. \quad (8)$$

The new variable, $(R_E + R_C)$ is similar to that created previously for R_E^2 and R_C^2, $(R_E^2 + R_C^2)$. The variables X_1, $(R_E + R_C)$, R_E^2 and R_C^2 would then be regressed on Y and the usual partial F test computed. This test also does not make much sense unless there is reason to believe b_2 and/or b_3 is greater than zero.

Lastly, one may wish to test whether or not the experimental $(b_0 + b_1)$ and control (b_0) group intercepts are significantly different. Thus, the null hypothesis,

$$b_1 = 0,$$

would be tested. If this restriction were placed on the full model, the restricted model would become,

$$Y = b_0X_0 + b_2R_E + b_3R_C + b_4R_E^2 + b_5R_C^2 + e. \quad (9)$$

This particular method of testing intercept differences by setting b_1 equal to 0 (zero) is most logical when one views $b_0 + b_1$ as a constant that is added to all experimental group scores and just b_0 is added to all control group scores; thus if $b_1 = 0$, then $b_0 = b_0 + b_1$.

All restricted model R^2's were evaluated against the R^2 for the same six parameter full model; that is, when higher order effects (e.g., quadratic, quadratic interaction and even linear interaction effects) were not statistically significant, the investigators did not revise the full model so as to exclude such non-significant components. This latter procedure, similar to pooling non-significant sums of squares into the error term in the analysis of variance, involves assuming that the null hypotheses for non-significant effects are true when they cannot be rejected. The investigators chose not to be forced to make this kind of assumption since failing to reject a null hypothesis (i.e., that the effect tested is not statistically significant) is a function of the probability of failing to reject a <u>false</u> null hypothesis and since this probability is usually unknown - most certainly in exploratory studies such as the present one.

To review, the test of the full model that is shown examined whether or not all components in the model together could be zero. Restricted Model 1 simultaneously tested for the presence of quadratic relationships between "self-image level" and the factor score variable associated with it for experimental and control group students. Restricted Model 2 examined the hypothesis that these quadratic coefficients were different. Restricted Model 3 simultaneously tested the hypothesis that the linear relationship between "self-image level" and its dependent variable were non-zero for both experimental students and control students. Restricted Model 4 sought to answer the question of whether or not the linear coefficients were the same for experimentals and for controls. The last model, Restricted Model 5, examined the difference in intercepts between experimental and control group regression lines when the "self-image level" variable for each group was regressed on the appropriate dependent variable factor score for that group.

APPENDIX F

F-1 REGRESSION ANALYSIS COEFFICIENTS FOR THE EIGHT FACTORS OF THE "WOULD JOHN INSTRUMENT FOR EACH ETHNIC GROUP

F-2 REGRESSION ANALYSIS COEFFICIENTS FOR THE EIGHT FACTORS OF THE "WOULD YOU" INSTRUMENT FOR EACH ETHNIC GROUP

APPENDIX F-1

Regression Analysis Coefficients for the Eight Factors of the "Would John" Instrument for Each Ethnic Group

Factors (Whites)

Coefficients	I	II	III	IV	V	VI	VII	VIII
Linear slope (E)	3.59	4.61	4.04	4.12	2.88	3.21	3.20	4.58
Linear slope (C)	4.18	4.36	3.35	3.03	2.40	5.13	3.35	3.35
Curvilinear bend (E)	-0.85	-1.21	-1.14	-1.24	0.34	-0.01	-0.04	-1.59
Curvilinear bend (C)	-0.86	-0.92	-0.15	0.19	0.61	-1.79	-0.17	-0.57
Intercept (C)	-1.71	-2.07	-1.84	-1.92	-1.52	-2.27	-1.57	-1.57
Intercept difference (E - C)	0.37	-0.20	0.14	0.78	0.08	0.53	0.28	0.17

Factors (Blacks)

Coefficients	I	II	III	IV	V	VI	VII	VIII
Linear slope (E)	4.49	4.36	3.89	3.27	4.69	4.00	3.19	4.37
Linear slope (C)	5.64	5.94	4.61	3.59	4.98	3.06	1.14	3.71
Curvilinear bend (E)	-0.97	-1.05	-0.03	0.09	-0.51	-0.56	0.65	-0.11
Curvilinear bend (C)	-1.89	-2.53	-1.09	-0.20	-1.26	0.26	2.11	-0.19
Intercept (C)	-2.15	-1.77	-1.91	-2.06	-2.29	-1.47	-1.46	-1.87
Intercept difference (E - C)	-0.03	0.13	0.03	0.40	0.13	0.03	-0.38	-0.26

Factors (Mexican-Americans)

Coefficients	I	II	III	IV	V	VI	VII	VIII
Linear slope (E)	3.12	4.03	2.74	4.62	4.57	3.65	2.99	4.59
Linear slope (C)	5.05	3.73	4.54	3.14	4.89	3.66	2.55	3.94
Curvilinear bend (E)	0.02	-0.90	0.49	-1.61	-1.71	-0.27	-0.14	-1.71
Curvilinear bend (C)	-1.19	-0.64	-1.25	0.12	-1.80	-0.38	0.75	-0.80
Intercept (C)	-2.17	-1.60	-1.80	-1.68	-1.68	-1.78	-1.91	-1.85
Intercept difference (E - C)	0.41	0.14	0.09	0.17	-0.15	0.07	0.58	0.30

Factors (Indians)

Coefficients	I	II	III	IV	V	VI	VII	VIII
Linear slope (E)	4.78	2.75	3.33	1.65	3.37	3.20	5.02	3.73
Linear slope (C)	5.08	1.25	3.05	3.09	1.91	2.76	2.14	4.94
Curvilinear bend (E)	-1.80	-0.02	-0.56	1.60	-0.68	-0.67	-1.64	-0.78
Curvilinear bend (C)	-2.27	1.57	-0.00	0.09	0.87	0.25	0.83	-1.96
Intercept (C)	-1.64	-1.65	-1.66	-1.71	-0.92	-1.93	-1.55	-2.02
Intercept difference (E - C)	-0.28	0.03	0.49	0.41	-0.66	0.50	-0.35	0.00

APPENDIX F-2

Regression Analysis Coefficients for the Eight Factors of the "Would You" Instrument for Each Ethnic Group

Factors (Whites)

Coefficients	I	II	III	IV	V	VI	VII	VIII
Linear slope (E)	3.27	4.24	3.42	4.94	5.97	3.97	3.77	4.04
Linear slope (C)	3.39	3.49	2.88	3.67	3.10	4.24	3.96	4.50
Curvilinear bend (E)	0.17	-0.68	-0.19	-1.98	-2.02	-0.53	-0.33	-0.84
Curvilinear bend (C)	-0.52	-0.28	-0.01	-1.11	-0.09	-1.01	-0.99	-1.37
Intercept (C)	-1.43	-1.74	-1.32	-1.42	-1.64	-1.76	-1.59	-1.62
Intercept difference (E - C)	-0.08	-0.55	-0.03	-0.50	-0.89	-0.08	-0.19	-0.05

Factors (Blacks)

Coefficients	I	II	III	IV	V	VI	VII	VIII
Linear slope (E)	3.77	4.34	6.06	7.07	3.60	4.19	4.16	5.12
Linear slope (C)	4.67	3.83	2.52	6.61	3.68	3.11	5.72	5.92
Curvilinear bend (E)	-0.36	-1.01	-2.00	-3.54	-0.34	-0.85	-0.70	-1.34
Curvilinear bend (C)	-1.35	-0.25	0.74	-3.00	-0.75	0.07	-1.86	-2.50
Intercept (C)	-1.82	-1.50	-1.59	-2.22	-1.39	-1.32	-2.23	-2.08
Intercept difference (E - C)	-0.04	-0.33	-0.98	0.03	-0.17	-0.52	0.40	-0.18

Factors (Mexican-American)

Coefficients	I	II	III	IV	V	VI	VII	VIII
Linear slope (E)	5.93	3.43	3.85	4.57	4.04	5.32	4.69	5.97
Linear slope (C)	3.54	2.90	3.96	5.17	4.37	5.06	2.54	2.39
Curvilinear bend (E)	-2.08	-0.32	-0.62	-1.72	-0.38	-1.97	-1.38	-2.39
Curvilinear bend (C)	-0.08	0.25	-0.66	-2.31	-1.37	-1.60	0.45	0.31
Intercept (C)	-1.92	-1.46	-1.78	-1.66	-1.47	-2.14	-1.34	-1.32
Intercept difference (E - C)	-0.68	-0.40	-0.02	-0.07	-0.53	-0.04	-0.48	-0.90

Factors (Indians)

Coefficients	I	II	III	IV	V	VI	VII	VIII
Linear slope (E)	4.15	1.73	4.03	7.48	2.70	6.95	3.37	4.13
Linear slope (C)	3.28	2.79	2.79	3.47	4.27	4.73	3.37	5.51
Curvilinear bend (E)	-0.95	1.25	-0.63	-3.52	0.23	-3.44	-0.34	-0.78
Curvilinear bend (C)	-0.15	-0.22	-0.14	-0.59	-0.64	-1.48	-0.01	-2.41
Intercept (C)	-1.53	-1.22	-1.43	-1.66	-2.30	-1.94	-1.97	-2.12
Intercept difference (E - C)	-0.38	-0.02	-0.58	-1.56	0.72	-0.67	0.11	0.01

APPENDIX G

G-1 REGRESSION ANALYSES OF FACTOR SCORES AND SELF-IMAGE LEVEL FOR EACH ETHNIC GROUP ON THE "WOULD JOHN" INSTRUMENT

G-2 REGRESSION ANALYSES OF FACTOR SCORES AND SELF-IMAGE LEVEL FOR EACH ETHNIC GROUP ON THE "WOULD YOU" INSTRUMENT

APPENDIX G-1

Regression Analyses of Factor Scores and Self-Image Level
for Each Ethnic Group on the "Would John" Instrument

	Ethnic Groups							
	White		Black		Mexican-American		Indian	
	df	F Value	df	F Value	df	F Value	df	F Value
FACTOR I								
Full Model	5/201	(1) 630.18**	5/223	928.87**	5/123	634.03**	5/98	955.09**
Restricted Models								
Curvilinear bend	2/201	8.19**	2/223	26.00**	2/123	6.14**	2/98	73.83**
Curvilinear interaction	1/201	0.00	1/223	4.84*	1/123	6.14*	1/98	1.94
Linear slope	2/201	(1) 157.78**	2/223	274.47**	2/123	137.31**	2/98	396.93**
Linear interaction	1/201	1.80	1/223	6.89**	1/123	14.27**	1/98	0.72
Intercept difference	1/201	14.98**	1/223	0.11	1/123	13.04**	1/98	12.74**
FACTOR II								
Full Model	5/201	1008.76**	5/223	1673.68**	5/123	415.95**	5/98	716.35**
Restricted Models								
Curvilinear bend	2/201	16.57**	2/223	92.10**	2/123	4.27*	2/98	15.97**
Curvilinear interaction	1/201	0.60	1/223	26.68**	1/123	0.23	1/98	18.69**
Linear slope	2/201	264.67**	2/223	609.20**	2/123	97.11**	2/98	67.19**
Linear interaction	1/201	0.42	1/223	27.59**	1/123	0.28	1/98	14.77**
Intercept difference	1/201	5.34*	1/223	3.78	1/123	1.38	1/98	0.16
FACTOR III								
Full Model	5/201	336.71**	5/223	604.15**	5/123	569.59**	5/98	431.62**
Restricted Models								
Curvilinear bend	2/201	3.90*	2/223	4.50*	1/123	8.15**	2/98	1.46
Curvilinear interaction	1/201	2.96	1/223	4.14*	1/123	13.33**	1/98	1.25
Linear slope	2/201	75.30**	2/223	124.54**	2/123	114.28**	2/98	75.47**
Linear interaction	1/201	1.29	1/223	1.79	1/123	12.92**	1/98	0.29
Intercept difference	1/201	1.20	1/223	0.07	1/123	0.68	1/98	17.35**
FACTOR IV								
Full Model	5/201	517.74**	5/223	1093.78**	5/123	417.82**	5/98	1214.22**
Restricted Models								
Curvilinear bend	2/201	5.77**	2/223	0.39	1/123	8.47**	2/98	27.64**
Curvilinear interaction	1/201	7.64**	1/223	0.68	1/123	10.05**	1/98	21.23**
Linear slope	2/201	89.58**	2/223	169.28**	2/123	95.20**	2/98	96.74**
Linear interaction	1/201	4.08*	1/223	0.72	1/123	6.85**	1/98	17.33**
Intercept difference	1/201	43.75**	1/223	23.37**	1/123	1.87	1/98	28.91**

*significance at .05
**significance at .01

(1)Since the self-image "level" variable reflects the rank of the dependent variable, the two will be correlated. Therefore, the full model and the linear slopes of the experimental and control groups will be statistically significant.

APPENDIX G-1 (Cont.)

	Ethnic Groups							
	White		Black		Mexican-American		Indian	
	df	F Value	df	F Value	df	F Value	df	F Value
FACTOR V								
Full Model	5/201	1351.51**	5/223	1142.12**	5/123	952.77**	5/98	336.48**
Restricted Models								
Curvilinear bend	2/201	5.59**	2/223	11.20**	2/123	53.43**	2/98	4.07*
Curvilinear interaction	1/201	0.88	1/223	3.36	1/123	0.07	1/98	8.14**
Linear slope	2/201	146.83**	2/223	260.04**	2/123	353.97**	2/98	50.32**
Linear interaction	1/201	2.43	1/223	0.47	1/123	0.82	1/98	6.55*
Intercept difference	1/201	1.31	1/223	1.96	1/123	3.49	1/98	27.50**
FACTOR VI								
Full Model	5/201	552.54**	5/223	668.86**	5/123	348.87**	5/98	385.13**
Restricted Models								
Curvilinear bend	2/201	13.73**	2/223	1.78	2/123	0.57	2/98	2.26
Curvilinear interaction	1/201	13.39**	1/223	3.18	1/123	0.04	1/98	3.34
Linear slope	2/201	144.10**	2/223	111.82**	2/123	63.70**	2/98	65.76**
Linear interaction	1/201	14.51**	1/223	3.89*	1/123	0.00	1/98	0.68
Intercept difference	1/201	22.63**	1/223	0.09	1/123	0.21	1/98	18.31**
FACTOR VII								
Full Model	5/201	948.93**	5/223	831.19**	5/123	589.66**	5/98	321.70**
Restricted Models								
Curvilinear bend	2/201	0.24	2/223	26.69**	1/123	2.88	2/98	9.24**
Curvilinear interaction	1/201	0.13	1/223	11.54**	1/123	3.76	1/98	15.20**
Linear slope	2/201	152.93**	2/223	55.63**	2/123	66.07**	2/98	74.80**
Linear interaction	1/201	0.17	1/223	20.76**	1/123	0.84	1/98	18.65**
Intercept difference	1/201	11.34**	1/223	14.69**	1/123	29.74**	1/98	5.59*
FACTOR VIII								
Full Model	5/201	623.16**	5/223	1349.41**	5/123	574.91**	5/98	185.90**
Restricted Models								
Curvilinear bend	2/201	16.40**	2/223	0.35	1/123	17.79**	2/98	6.93**
Curvilinear interaction	1/201	6.12*	1/223	0.05	1/123	4.19*	1/98	2.36
Linear slope	2/201	171.20**	2/223	222.79**	2/123	168.88**	2/98	57.86**
Linear interaction	1/201	8.09**	1/223	2.96	1/123	1.91	1/98	2.26
Intercept difference	1/201	3.19	1/223	9.54**	1/123	8.45**	1/98	0.00

*significance at .05
**significance at .01

APPENDIX G-2

Regression Analyses of Factor Scores and Self-Image Level
for Each Ethnic Group on the "Would You" Instrument

	Ethnic Groups							
	White		Black		Mexican-American		Indian	
	df	F Value	df	F Value	df	F Value	df	F Value
FACTOR I								
Full Model	5/201	(1)752.82**	5/223	793.75**	5/123	464.43**	5/98	408.17**
Restricted Models								
Curvilinear bend	2/201	1.87	2/223	11.61**	2/123	11.92**	2/98	3.45*
Curvilinear interaction	1/201	2.97	1/223	5.76*	1/123	11.47**	1/98	2.09
Linear slope	2/201	(1)127.33**	2/223	193.58**	2/123	122.49**	2/98	87.17**
Linear interaction	1/201	0.09	1/223	4.25*	1/123	14.86**	1/98	2.25
Intercept difference	1/201	0.71	1/223	0.22	1/123	25.24**	1/98	8.84**
FACTOR II								
Full Model	5/201	612.21**	5/223	1236.85**	5/123	342.23**	5/98	626.46**
Restricted Models								
Curvilinear bend	2/201	2.31	2/223	8.82**	2/123	0.46	2/98	11.76**
Curvilinear interaction	1/201	0.68	1/223	4.75*	1/123	0.91	1/98	13.75**
Linear slope	2/201	120.36**	2/223	258.22**	2/123	51.34**	2/98	59.44**
Linear interaction	1/201	2.29	1/223	2.00	1/123	0.71	1/98	6.50*
Intercept difference	1/201	24.95**	1/223	17.47**	1/123	8.38**	1/98	0.04
FACTOR III								
Full Model	5/201	649.08**	5/223	1193.85**	5/123	351.25**	5/98	361.44**
Restricted Models								
Curvilinear bend	2/201	0.20	2/223	32.52**	2/123	2.29	2/98	1.43
Curvilinear interaction	1/201	0.17	1/223	54.49**	1/123	0.00	1/98	0.73
Linear slope	2/201	105.48**	2/223	285.61**	2/123	76.62**	2/98	71.17**
Linear interaction	1/201	1.50	1/223	84.62**	1/123	0.03	1/98	4.26*
Intercept difference	1/201	0.07	1/223	135.65**	1/123	0.01	1/98	18.78**
FACTOR IV								
Full Model	5/201	482.15**	5/223	459.81**	5/123	234.73**	5/98	332.09**
Restricted Models								
Curvilinear bend	2/201	26.42**	2/223	61.98**	2/123	19.53**	2/98	29.70**
Curvilinear interaction	1/201	3.90*	1/223	0.87	1/123	0.81	1/98	17.23**
Linear slope	2/201	178.06**	2/223	248.98**	2/123	101.83**	2/98	137.07**
Linear interaction	1/201	7.64**	1/223	0.56	1/123	0.77	1/98	29.13**
Intercept difference	1/201	24.71**	1/223	0.05	1/123	0.22	1/98	90.26**

*significance at .05
**significance at .01

(1)Since the self-image "level" variable reflects the rank of the dependent variable, the two will be correlated. Therefore, the full model and the linear slopes of the experimental and control groups will be statistically significant.

APPENDIX G-2 (Cont.)

	Ethnic Groups							
	White		Black		Mexican-American		Indian	
	df	F Value	df	F Value	df	F Value	df	F Value
FACTOR V								
Full Model	5/201	708.47**	5/223	689.17**	5/123	428.32**	5/98	327.42**
Restricted Models								
Curvilinear bend	2/201	19.11**	2/223	4.16*	2/123	6.50**	2/98	1.06
Curvilinear interaction	1/201	17.64**	1/223	1.02	1/123	3.02	1/98	1.89
Linear slope	2/201	196.93**	2/223	146.55**	2/123	100.55**	2/98	55.48**
Linear interaction	1/201	36.17**	1/223	0.03	1/123	0.30	1/98	5.57*
Intercept difference	1/201	72.69**	1/223	3.44	1/123	16.62**	1/98	23.80**
FACTOR VI								
Full Model	5/201	633.08**	5/223	761.31**	5/123	1359.74**	5/98	355.19**
Restricted Models								
Curvilinear bend	2/201	6.22**	2/223	4.21*	2/123	62.54**	2/98	38.03**
Curvilinear interaction	1/201	1.07	1/223	4.99*	1/123	1.32	1/98	9.33**
Linear slope	2/201	147.45**	2/223	145.69**	2/123	477.65**	2/98	167.00**
Linear interaction	1/201	0.30	1/223	6.19*	1/123	0.60	1/98	10.83**
Intercept difference	1/201	0.62	1/223	30.43**	1/123	0.26	1/98	20.15**
FACTOR VII								
Full Model	5/201	540.39**	5/223	1313.58**	5/123	491.27**	5/98	719.12**
Restricted Models								
Curvilinear bend	2/201	4.79**	2/223	32.47**	2/123	8.40**	2/98	0.79
Curvilinear interaction	1/201	1.87	1/223	10.85**	1/123	13.73**	1/98	0.65
Linear slope	2/201	120.22**	2/223	376.02**	2/123	104.52**	2/98	122.12**
Linear interaction	1/201	0.15	1/223	18.09**	1/123	17.39**	1/98	0.00
Intercept difference	1/201	3.10	1/223	24.43**	1/123	17.96**	1/98	1.21
FACTOR VIII								
Full Model	5/201	881.27**	5/223	721.57**	5/123	652.96**	5/98	356.11**
Restricted Models								
Curvilinear bend	2/201	18.77**	2/223	36.98**	2/123	30.50**	2/98	15.96**
Curvilinear interaction	1/201	2.04	1/223	6.17*	1/123	39.79**	1/98	7.25**
Linear slope	2/201	245.36**	2/223	257.57**	2/123	198.68**	2/98	115.37**
Linear interaction	1/201	1.44	1/223	2.65	1/123	63.32**	1/98	4.68*
Intercept difference	1/201	0.29	1/223	2.70	1/123	83.42**	1/98	0.01

*significance at .05
**significance at .01